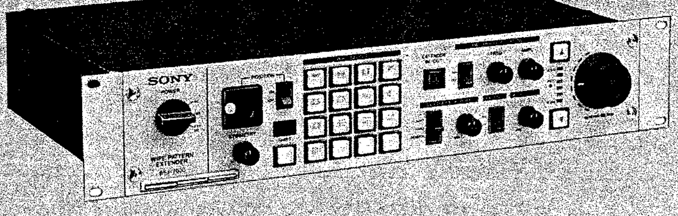
WEX-2000/P/PM

WIPE PATTERN EXTENDER



SPECIFICATIONS

Wipe pattern:	84 patterns
Mosaic wipe:	5 sequences, 16 blocks
Pattern modulation:	Frequency and amplitude are continuously adjustable
Pairing:	Every other scanning line
Wipe speed:	From approx. 0.5 sec. to 9 sec.
Input/output:	GENLOCK: BNC connector Black burst (sync 0.3 V p-p, burst 0.3 V p-p) or 1.0 V p-p (VBS) equipped with a loop-through output and 75 ohm termination switch WIPE OUT 1: 6-pin DIN connector 1.0 V p-p, 75 ohms unbalanced, with control signal WIPE OUT 2: BNC connector 1.0 V p-p, 75 ohms unbalanced
Power requirements:	WEX-2000: 120 V ac, 50/60 Hz 11 to 15 V dc WEX-2000P/PM: 110, 127, 220 or 240 V ac, ±10% (selectable), 50/60 Hz 11 to 15 V dc
Power consumption:	19 W (ac) 14 W (dc)
Operating temperature:	0°C to 40°C (32°F to 104°F)
Dimensions:	Approx. 482 x 88 x 300 mm (w/h/d) (19 x 3 1/2 x 11 7/8 inches) incl. projecting parts and controls
Weight:	Approx. 7 kg (15 lb 7 oz)
Accessory supplied:	AC power cord (1)

SONY®

SERVICE MANUAL

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

Check the metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microampers). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)

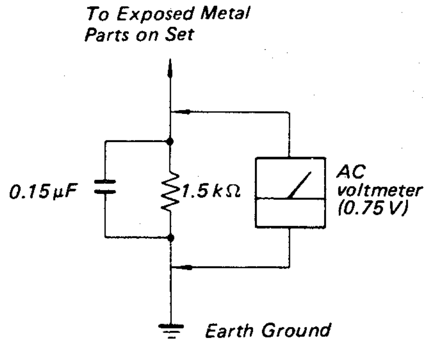


Fig. A. Using an AC voltmeter to check AC leakage.

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SECTION 1
OPERATION

1-1. FEATURES

The WEX-2000 wipe pattern extender increases the wipe pattern versatility of the Sony SEG-2000/SEG-2000A series special effects generator. It allows various kinds of wipe operations and a wide variety of patterns.
The WEX-2000 has the following features:

84 kinds of wipe patterns

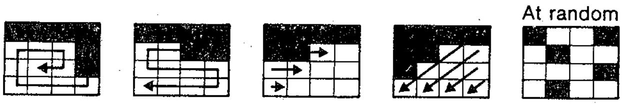
16 basic patterns can be selected directly with the WIPE SELECT keys. Other patterns are selected by entering their codes with the numeric keys. These advanced wipe patterns and their codes are indicated on charts which can be easily referred to. Up to 3 advanced patterns selected by the numeric keys can be memorized on memory keys to allow their rapid selection.

Variable speed wipe operation

There are 3 methods of wiping the picture out: automatic wipe, servo-wipe and trim wipe. In the automatic wipe, the wipe speed depends upon the setting of the WIPE SPEED control. In the servo-wipe, the wipe speed can be adjusted as desired by the degree of revolution of the wipe control knob, and in the trim-wipe mode, the wipe proceeds step-by-step.

5 sequences of mosaic wipe

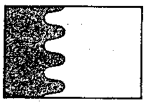
In the mosaic wipe, the picture is divided into 16 blocks, and the wipe proceeds block-by-block. 5 sequences available for this operation. The mosaic wipe patterns are generated by the built-in microprocessor.



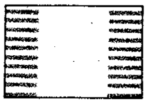
Wipe operation versatility

The wipe pattern can be modified in various ways:

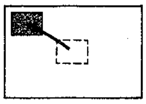
1) **Pattern modulation:** The edge of the wipe pattern can be modulated with a sine curve.



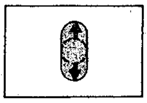
2) **Pairing wipe:** The picture is wiped from both ends of the screen alternately.



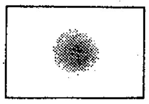
3) **Pattern positioning:** The center of the wipe pattern can be placed at any position on the screen.



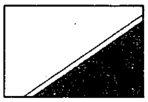
4) **Symmetry adjustment:** The ratio of the width of the wipe pattern to the height can be adjusted.



5) **Soft edge:** The edge of the wipe pattern can be softened.

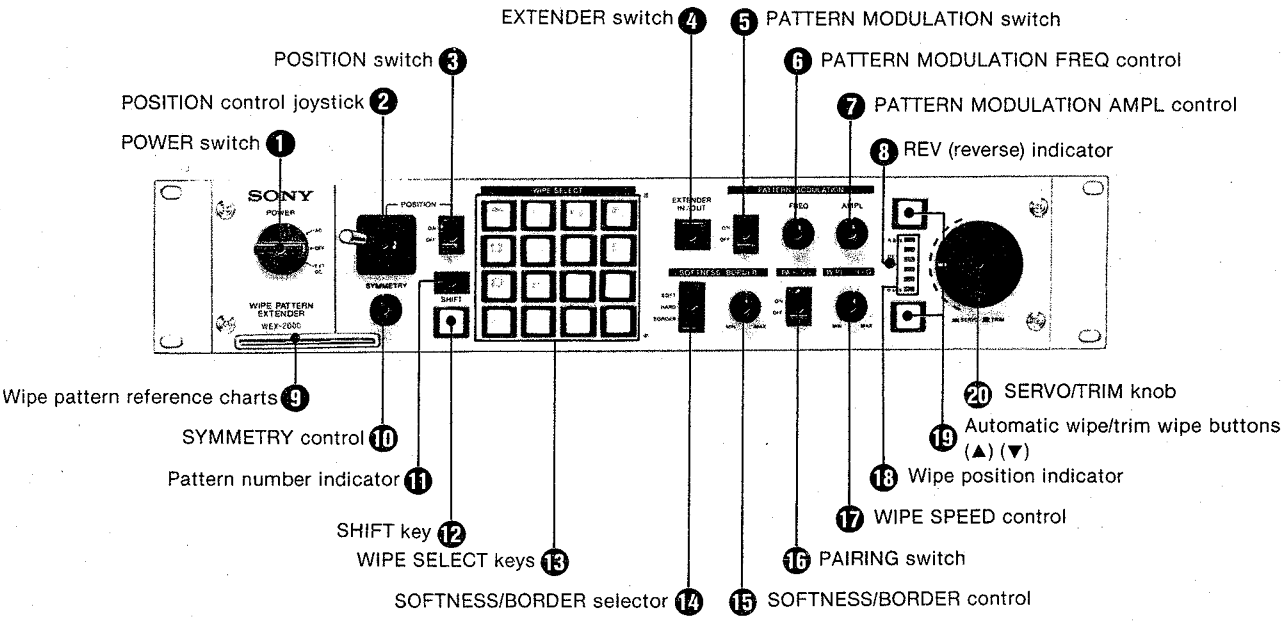


6) **Addition of a border:** The border area can be colored.



1-2. LOCATION AND FUNCTION OF PARTS AND CONTROLS

Control Panel


EXTENDER switch ❹
❺ PATTERN MODULATION switch
POSITION switch ❸
❻ PATTERN MODULATION FREQ control
POSITION control joystick ❷
❼ PATTERN MODULATION AMPL control
POWER switch ❶
❽ REV (reverse) indicator
SONY
POWER
WIPE PATTERN EXTENDER
WEX-2000
POSITION
SYMMETRY
SHIFT
WIPE SELECT
EXTENDER IN/OUT
PATTERN MODULATION
FREQ
AMPL
SOFTNESS/BORDER
Wipe pattern reference charts ❾
SYMMETRY control ❿
Pattern number indicator ⓫
SHIFT key ⓬
WIPE SELECT keys ⓭
SOFTNESS/BORDER selector ⓮
⓯ SOFTNESS/BORDER control
⓰ PAIRING switch
⓱ WIPE SPEED control
⓲ Wipe position indicator
⓳ Automatic wipe/trim wipe buttons (▲) (▼)
⓴ SERVO/TRIM knob

❶ POWER switch
Select the power source with this switch.
ON : For use with an ac power source.
OFF : To turn the unit off. When the unit is not being used, set the switch to OFF.
EXT DC : For use with an external dc power source connected to the EXT DC connector ㉖.

❷ POSITION control joystick
Adjusts the position of the wipe pattern on the screen when the POSITION switch is set to ON. The position can be adjusted only with simple circle or rectangle patterns. For details, refer to the table on page 20.

❸ POSITION (positioning) switch
Set to ON to adjust the position of the wipe pattern. If this switch is set to OFF, the pattern returns to the center of the screen regardless of the joystick setting.

❹ EXTENDER switch
Turns the wipe pattern signal to the WIPE OUT-1 connector on and off. When this switch is pressed and set to ON (the switch lights up), the special effects control section of the SEG-2000A special effects generator will not function, and the WEX-2000 controls the wipe operation.
In the OFF position, it is the special effects generator which controls the wipe operation. To set the switch off, press it again.

❺ PATTERN MODULATION switch
When this switch is set to ON, the vertical edge of the wipe pattern is transformed into a sine curve. The frequency and the amplitude of this sine curve can be adjusted with the FREQ and AMPL controls, respectively.
To make the wipe pattern edge straight, set this switch to OFF.

❻ PATTERN MODULATION FREQ (frequency) control
Adjusts the frequency of the sine curve forming the vertical edge of the wipe pattern when the PATTERN MODULATION switch is ON.

❼ PATTERN MODULATION AMPL (amplitude) control
Adjusts the amplitude of the sine curve forming the vertical edge of the wipe pattern when the PATTERN MODULATION switch is ON.

❽ REV (reverse) indicator
Lights up when the picture is being wiped in a direction opposite to the direction of the automatic wipe/trim button pressed or opposite to the direction of rotation of the SERVO/TRIM knob.

❾ Wipe pattern reference charts
Three reference charts list the wipe patterns which are to be entered by entry codes.

⑩ SYMMETRY control
Adjusts the ratio between the height and the width of the wipe pattern.

⑪ Pattern number indicator
In the code-select mode, the three-digit pattern code is displayed here.

⑫ SHIFT key
This key selects either the key-select or code-select mode of wipe pattern selection. Press this key to select the code-select mode. When the code-select mode is selected, the key lights up. In this mode, you can select any of the advanced wipe patterns on the reference charts by entering the pattern code with the WIPE SELECT keys.
To return to the key-select mode, press the SHIFT key again so that the light goes off. The WIPE SELECT keys will now select the basic wipe patterns.

⑬ WIPE SELECT keys
In the key-select mode, these keys permit the immediate selection of one of the 16 basic wipe patterns which are indicated on the keys.
In the code-select mode, these keys function as numeric keys (0 to 9), memory keys (M1 to M3), and a clear key (CL).

⑭ SOFTNESS/BORDER selector
This selector functions only when the WEX-2000 is used with the SEG-2000A special effects generator. This selects the wipe pattern edge.
SOFT: For a soft wipe pattern edge.
HARD: For a sharp wipe pattern edge.
BORDER: To color the border of the wipe pattern with a color selected by the SEG-2000A background select function.

⑮ SOFTNESS/BORDER control
Adjusts the softness of the edge of the wipe pattern when the SOFTNESS/BORDER selector ⑭ is set to SOFT, or adjusts the width of the border of the wipe pattern when the SOFTNESS/BORDER selector is set to BORDER.

⑯ PAIRING switch
Set to ON to select the pairing wipe mode. In the pairing wipe mode, a stripe pattern wipes the picture from both sides in pairs: odd lines wipes from one side, and even lines from the other.
To stop the pairing wipe, set the switch to OFF.

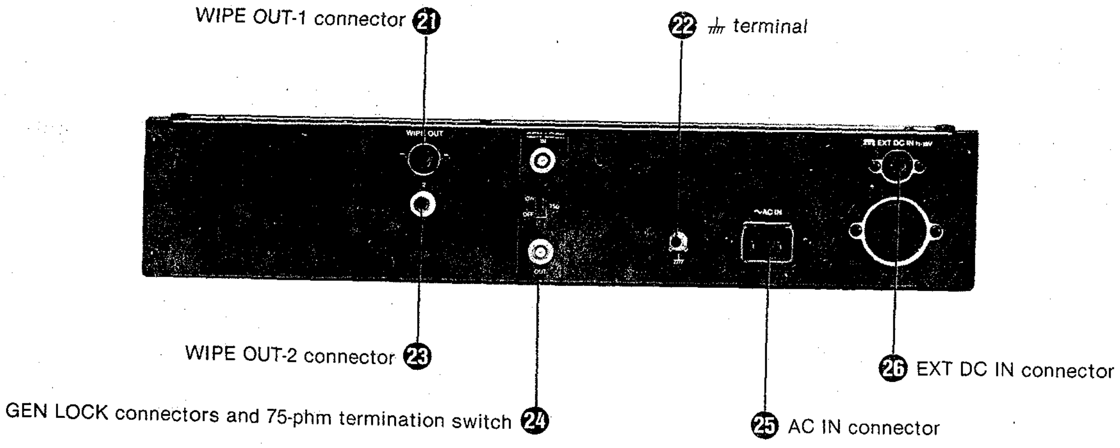
⑰ WIPE SPEED control
Adjusts the wipe speed in the automatic wipe mode. To increase the speed, turn the knob to the right; to decrease, turn it to the left. Wipe time (required time to move the wipe position indicator illumination from one end to the other) is 0.5 to 9 seconds.

⑱ Wipe position indicator
In the automatic and servo-wipe modes, the red illumination of the indicator shows how much of the picture has been wiped. When the uppermost element lights, the whole picture from the "A" bus (or key bus when the WEX-2000 is connected with the CRK-2000) is displayed on the screen; when the lowermost element lights, it is the "B" bus (insert bus in the case of the CRK-2000) picture that is displayed.
In the trim wipe mode, the indicator blinks in red.
When the pattern limiter is set, the indicator corresponding to the position, which is set, lights in yellow. When the wipe operation is performed, the yellow indicator turns green, indicating the limiter's position.

⑲ Automatic wipe/trim wipe buttons (▲)(▼)
When the SERVO/TRIM knob is depressed, these buttons initiate the automatic wipe. Press the ▲ button in order to wipe the picture in the direction in which the wipe pattern grows larger (or in the direction indicated on the key or chart during mosaic wipe). Press the ▼ button to wipe in the opposite direction.
In the trim wipe mode (when the SERVO/TRIM knob is pulled out), pressing a button once wipes the picture by one step.
These buttons are also used for setting the pattern limiter.
To set the pattern limiter, stop the wipe operation at the desired position, and then press these two buttons simultaneously.

⑳ SERVO/TRIM knob
When this knob is pressed in and turned, a servo-wipe will be performed. In the servo-wipe operation, clockwise rotation of this knob wipes the picture in the direction in which the wipe pattern grows larger (or in the direction indicated on the key or chart during mosaic wipe). Counterclockwise rotation does the reverse. The wipe speed depends upon the degree of rotation: when the knob is turned a lot, the wipe will be fast, and when the knob is rotated only a little, the wipe will be slow.
Pull this knob out to select the trim wipe mode, in which the wipe operation is realized step by step by pressing the ▲ or ▼ button.

Connector Panel


WIPE OUT-1 connector ㉑
㉒ ⏚ terminal
WIPE OUT-2 connector ㉓
GEN LOCK connectors and 75-phm termination switch ㉔
㉖ EXT DC IN connector
㉕ AC IN connector
WIPE OUT
EXT DC IN
~AC IN
IN
OUT
ON
OFF

㉑ WIPE OUT-1 connector (6-pin DIN)
Outputs the wipe pattern signal generated by the WEX-2000. Connect to the external wipe input (EXT WIPE IN) of the SEG-2000A special effects generator.
The output signal from this connector is switched on or off by the EXTENDER switch.

㉒ ⏚ (ground) terminal
Connect to a good ground when required.

㉓ WIPE OUT-2 connector (BNC)
Outputs the wipe pattern signal generated by the WEX-2000. Connect to an external key input connector of the SEG-2000 special effects generator or of the CRK-2000 universal chroma keyer. This connector always supplies a wipe pattern signal, regardless of the setting of the WEX-2000's EXTENDER switch.

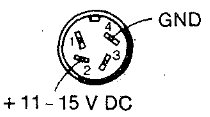
㉔ GEN LOCK (generator lock) connectors (BNC) **and 75-ohm termination switch**
Connect a black burst signal to the IN connector in order to provide the sync signal for the WEX-2000. The black burst signal connected to the IN jack is fed out from the OUT connector (loop-through out).

- Be sure to set the 75-ohm termination switch to OFF when a loop-through connection is made. When the OUT connector is not being used, set the switch to ON.

㉕ AC IN (ac input) connector
Connect the supplied ac power cord to operate the unit with an ac power source. To operate the unit with the ac power, set the POWER switch to ON.

㉖ EXT DC IN (external dc input) connector (4-pin DIN)
Connect an external dc power source of 11 V to 15 V. To operate the unit with the dc power, set the POWER switch to EXT DC.

Composition of the EXT DC IN connector


GND
1
2
3
4
+11 - 15 V DC

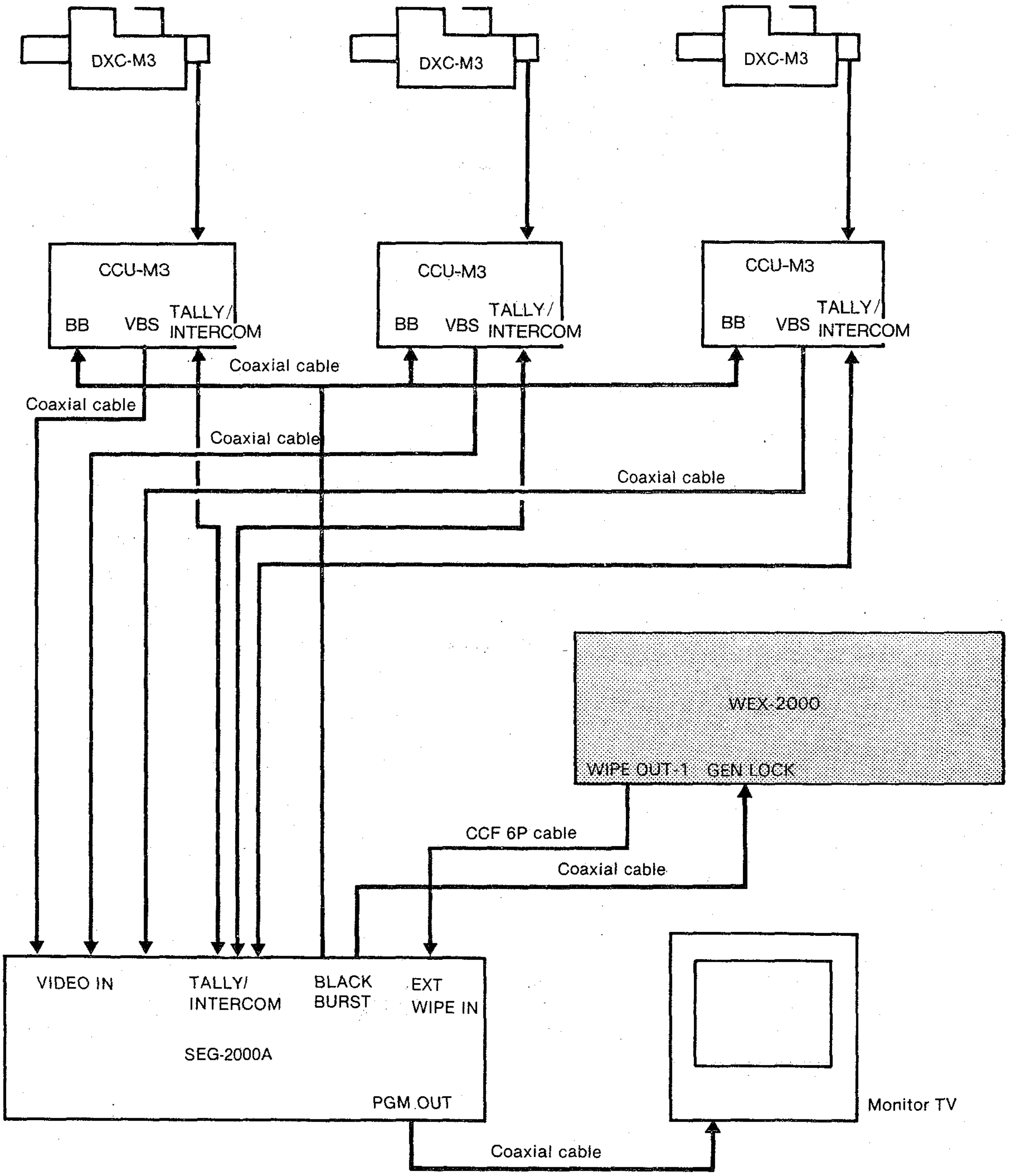
Note
When the WEX-2000 operates with the dc power, some connection may cause noises on the picture when the camera control units, monitors, etc. are connected. For details, please consult the Sony dealer from whom this unit was purchased.

1-3. SYSTEM CONNECTIONS

1-3-1. Before Making Connections

- To remove the connector, pull it out by the plug. Never pull the cord itself.
- The power cord connection should be made only after all other connections have been completed.

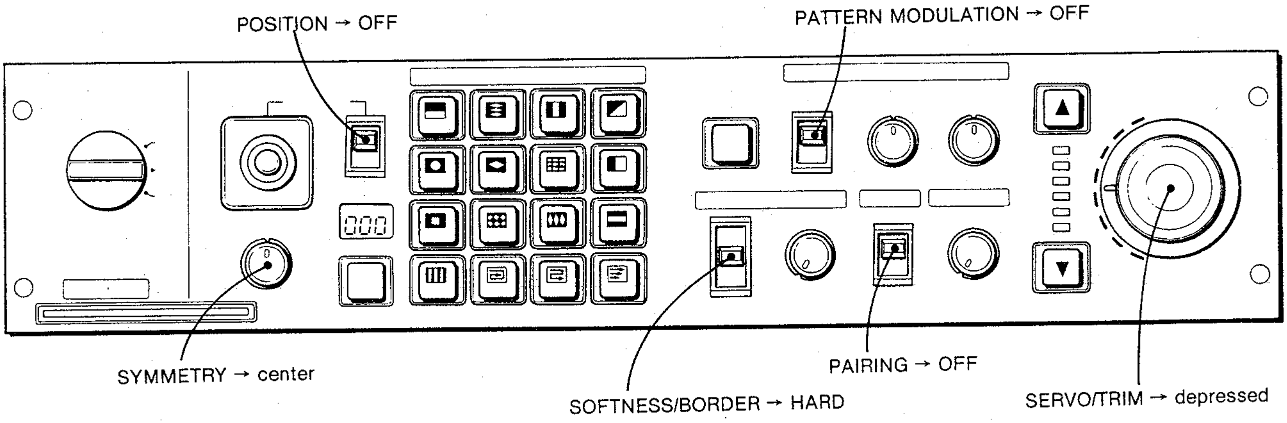
1-3-2. Basic System Connections


DXC-M3
DXC-M3
DXC-M3
CCU-M3
BB
VBS
TALLY/ INTERCOM
CCU-M3
BB
VBS
TALLY/ INTERCOM
CCU-M3
BB
VBS
TALLY/ INTERCOM
Coaxial cable
Coaxial cable
Coaxial cable
Coaxial cable
WEX-2000
WIPE OUT-1
GEN LOCK
CCF 6P cable
Coaxial cable
VIDEO IN
TALLY/ INTERCOM
BLACK BURST
EXT WIPE IN
SEG-2000A
PGM OUT
Monitor TV
Coaxial cable

1-4. BASIC OPERATION

1-4-1. Initial Settings on the WEX-2000

Before turning on the WEX-2000, be sure to set the following switches and controls, as shown below, in order to assure a system start-up without any problem.



1-4-2. Start up

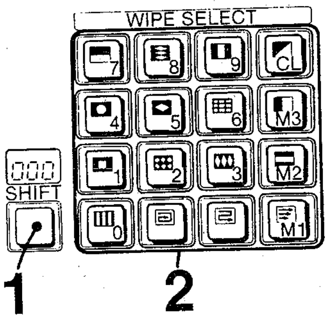
Note
To operate the WEX-2000 wipe pattern extender, it is necessary to supply it with a black burst signal from the connected equipment, since the WEX-2000 does not have a sync generater.

Start-up procedure

1. Turn on the equipment which supplies the black burst signal, such as the SEG-2000A, SEG-2000, or CRK-2000.
2. When using the SEG-2000A, set it into the wipe operation mode.
   When using the CRK-2000, SEG-2000 or other equipment, set it to the external keying mode.
   ●For details, refer to the operating instructions of the unit to be used.
3. Turn on the power of the WEX-2000.
   Confirm that the one of the WIPE SELECT keys and the wipe position indicator illuminate. If not, check the sync signal connection to the GEN LOCK input and that the connected equipment is turned on.
4. When using the SEG-2000A, press the EXTENDER switch on the WEX-2000 so that it lights up. When using the equipment other than the SEG-2000A, this step is not needed.

1-4-3. Wipe Pattern Selection

1. Make sure that the SHIFT key is not lit. If it is lit, press the SHIFT key.
2. Simply press the WIPE SELECT key corresponding to the desired pattern. The pressed key will light up.

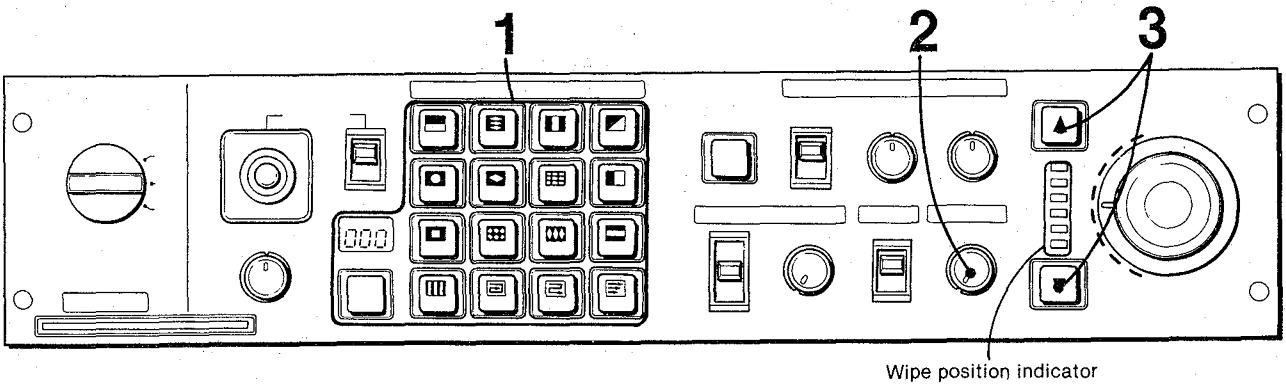


To select the other advanced patterns, refer to page 11.

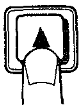
1-4-4. Wipe Operation

There are three modes of wipe operation: automatic wipe, servo wipe and trim wipe. In the automatic wipe, the picture is wiped automatically at the pre-adjusted speed up to the end. The servo wipe mode allows you to wipe pictures manually at a desired speed to a desired point. The trim wipe wipes the picture step-by-step: this is useful for setting the pattern limiter point precisely. (See page 12).

Automatic wipe

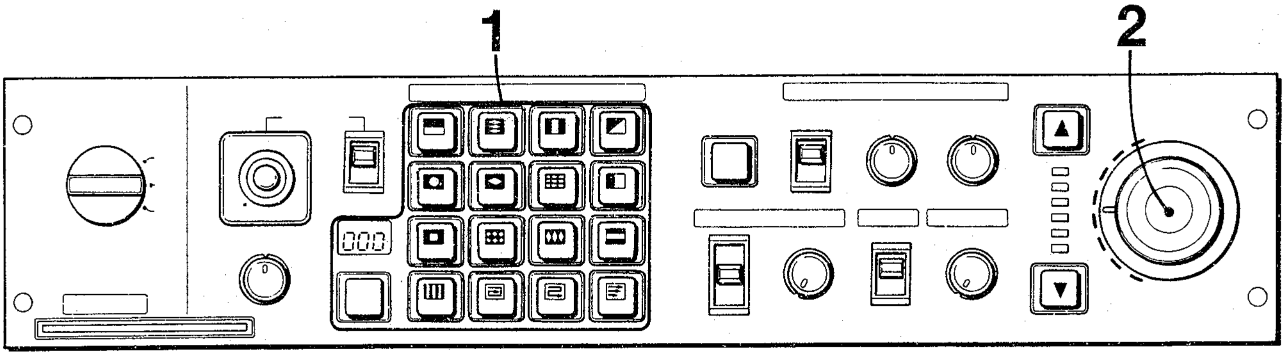


1 Select the wipe pattern. (See page 8.)
2 Adjust the WIPE SPEED control to the desired speed.
●To set the speed precisely, repeat steps 2 and 3 several times.
3 Press either of the automatic wipe/trim buttons.
The illuminated element of the wipe position indicator moves and the picture is wiped.
The ▲ button wipes the picture in the direction in which the wipe pattern grows larger, and the ▼ button to wipe in the opposite direction.


Press once.

If you want to wipe the picture again, press either the ▲ or ▼ button—the same button pressed in step 3 for a "one-way" wipe (in which the wipe is performed in one direction) or the other button for a "to-and-fro" wipe (in which the wipe is performed first in the opposite direction then in the original direction).

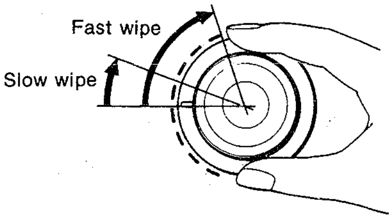
Servo Wipe



1 Select the wipe pattern (see page 8).

2 Turn the SERVO/TRIM knob to the right or left. The picture is wiped. To stop the wipe, release the knob.

- To wipe fast, turn the knob a lot ; to wipe slowly, turn it slightly.



- The direction of the wipe operation is determined by the direction the knob is turned. Clockwise rotation wipes the picture in the direction in which the wipe pattern grows larger.

If you want to wipe the picture again, turn the knob again in either direction: in the same direction as before for a "one-way" wipe operation, or in the opposite direction for a "to-and-fro" wipe operation.

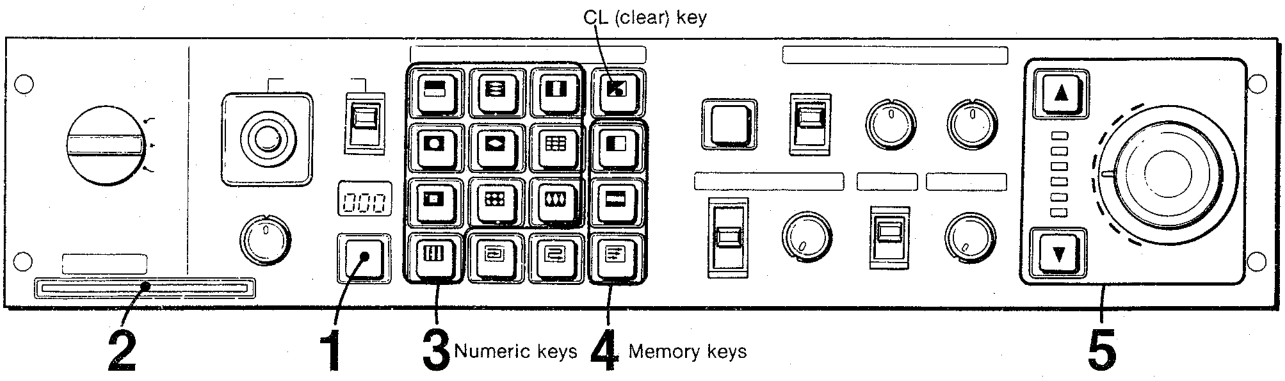
1-4-5. Mosaic Wipe

With the WEX-2000, 5 sequences of mosaic wipe can be obtained. In the mosaic wipe, the picture is divided into 16 blocks and the wipe is performed block-by-block.
Three of the 5 sequences are selected by the WIPE SELECT keys directly and two are available by selecting the appropriate code with the numeric keys.

Note
In the mosaic wipe operation, the adjustments or modifications of the wipe patterns which are described in the following sections cannot be made.

1-5. ADVANCED OPERATION

1-5-1. To Select Wipe Patterns with Pattern Codes



1 Press the SHIFT key so that it lights up.
2 Pull out the reference charts and select the pattern you want.
3 Enter the code of the pattern selected with the numeric keys. The entered code is displayed in the pattern code indicator.
●If you have entered the incorrect code, press the CL (clear) key. Now you can re-enter the code.
●If an invalid code is entered, the CL key blinks. If this happens, press the CL key and re-enter the code.
4 Press one of the memory keys (M1 to M3). The selected pattern code is memorized on the pressed key. To memorize pattern codes on the remaining memory keys, repeat steps 3 and 4. Once the pattern code is memorized, you can obtain the corresponding pattern by simply pressing the memory key.
5 Wipe the picture. (See page 9 or 10.)

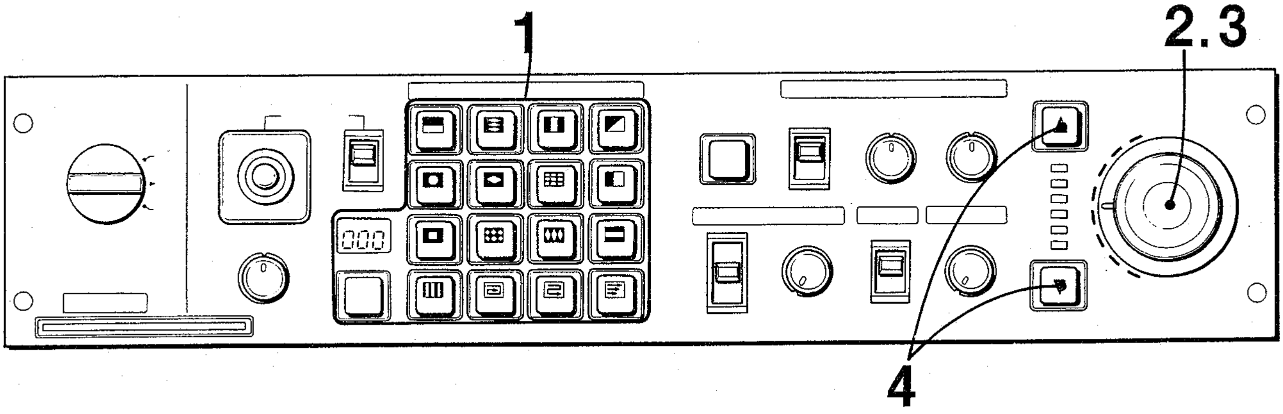
●When the code-select mode is selected, one of the memory keys blinks, indicating the pattern which is being output.

●The selected code can be memorized on any memory key, whether it is blinking or not.

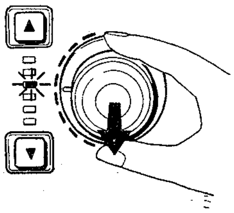
●To return to the normal key-select mode, press the illuminated SHIFT key again.

Note: Note that the memory of a memory key will be erased when the power of the WEX-2000 is turned off or when another code is memorized on that key.

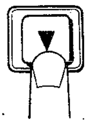
1-5-2. Trim Wipe



1 Select the desired wipe pattern (see page 8 or 11).
2 Turn the SERVO/TRIM knob to wipe the picture to a desired point.
3 Pull out the SERVO/TRIM knob. The wipe position indicator blinks.



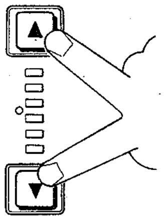
4 Press either the ▲ or ▼ button. Every time you press the button, the wipe pattern becomes larger or smaller by one step.



Press several times.

1-5-3. To Stop the Wipe at a Pre-determined Point: The Pattern Limiter

You can stop the wipe at a point previously determined with the pattern limiter.
To set the pattern limiter, proceed as follows:
1 Select the desired wipe pattern.
2 Wipe the picture to the desired point with the SERVO/TRIM knob in the servo-wipe mode.
3 Adjust the point precisely in the trim wipe mode.
4 Press the ▲ and ▼ buttons simultaneously. The wipe position indicator turns yellow and the pattern limiter is set to that point.

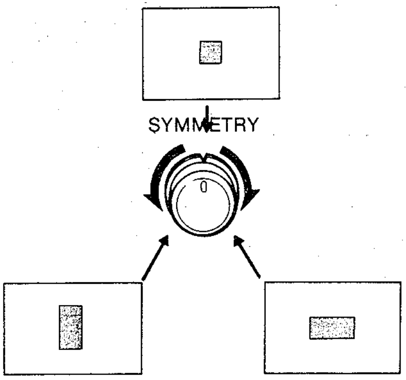


Once the limiter is set, an automatic wipe or a servo-wipe will stop at that point.
- To start the wipe again from that point and run to the end, press the ▲ or ▼ button again, or turn the SERVO/TRIM knob.
- To cancel the pattern limiter setting, wipe the picture fully in either direction (so that the uppermost or lowermost element of the wipe position indicator lights up), and then press the ▲ and ▼ buttons simultaneously.

Note
- When the picture is wiped in the reverse direction, the pattern limiter point will move so that the ratio of the wiped picture to the original will be the same as that in the first wipe.
- In the trim wipe mode, the pattern limiter is not effective.

1-5-4. To Change the Height/Width Ratio of the Pattern

The ratio of the height to the width of the wipe pattern can be adjusted with the SYMMETRY control. To widen the pattern, turn the control clockwise; to heighten it, turn the knob counterclockwise.

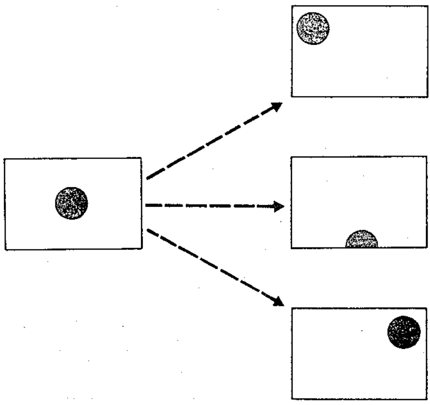


Note

- With some of the patterns, the SYMMETRY control is invalid. Refer to the table on page 20 for details.
- Do not leave the SYMMETRY control turned fully in one direction, or the wipe may not be complete. Normally set the control to the center position.

1-5-5. To Position the Wipe Pattern

With the POSITION switch set to ON, you can set the center of the wipe pattern in any position on the screen by maneuvering the joystick.

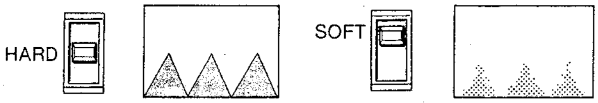


Note

The positioning control is valid with only a few patterns. Please refer to the table on page 20 for the patterns whose position can be changed.

1-5-6. To Soften the Edge of the Wipe Pattern

When you set the SOFTNESS/BORDER selector to the SOFT position, the wipe pattern edge will be soft. The degree of softness can be adjusted with SOFTNESS/BORDER control. To sharpen the edge again, reset the selector to HARD.

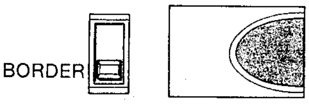


Note

This function is available only when the unit is connected to a SEG-2000A special effects generator.

1-5-7. To Color the Wipe Pattern Edge

Set the SOFTNESS/BORDER selector to the BORDER position, so the wipe pattern will be edged with a border. The border is the complementary color of the background color selected on the SEG-2000A. To adjust the width of the border, turn the SOFTNESS/BORDER control.
To erase the border, reset the selector to HARD.

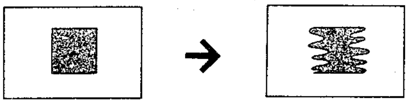


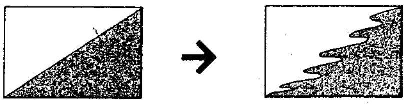
Notes

- This function is available only when the unit is connected to a SEG-2000A.
- The color and the brightness of the border can be adjusted with the BACKGROUND COLOR joystick of the SEG-2000A.

1-5-8. To Modulate the Pattern Edge With a Sine Curve

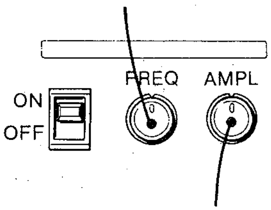
You can transform the pattern edge to a sine curve.
Set the PATTERN MODULATION switch to ON. The wipe pattern edge will be transformed into a horizontal sine curve.





Note
Horizontal lines cannot be modulated.

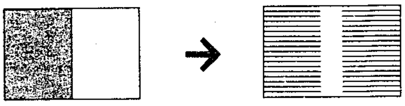
To adjust the frequency of the curve
Adjust the FREQ control until the desired frequency is obtained. Clockwise rotation increases the frequency.

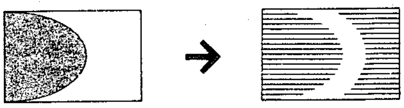


To adjust the amplitude of the curve
Adjust the AMPL control until the desired amplitude is obtained. Clockwise rotation increases the amplitude. When the control is turned fully counterclockwise, the pattern edge will be straight.

1-5-9. To Wipe the Picture in a Grill Format: Pairing Wipe

In the pairing wipe, the wipe operation is performed in a grill format from opposite ends of the screen; in other words, pairs of scanning lines wipe the picture alternately from either end.
To perform the pairing wipe, set the PAIRING switch to ON.





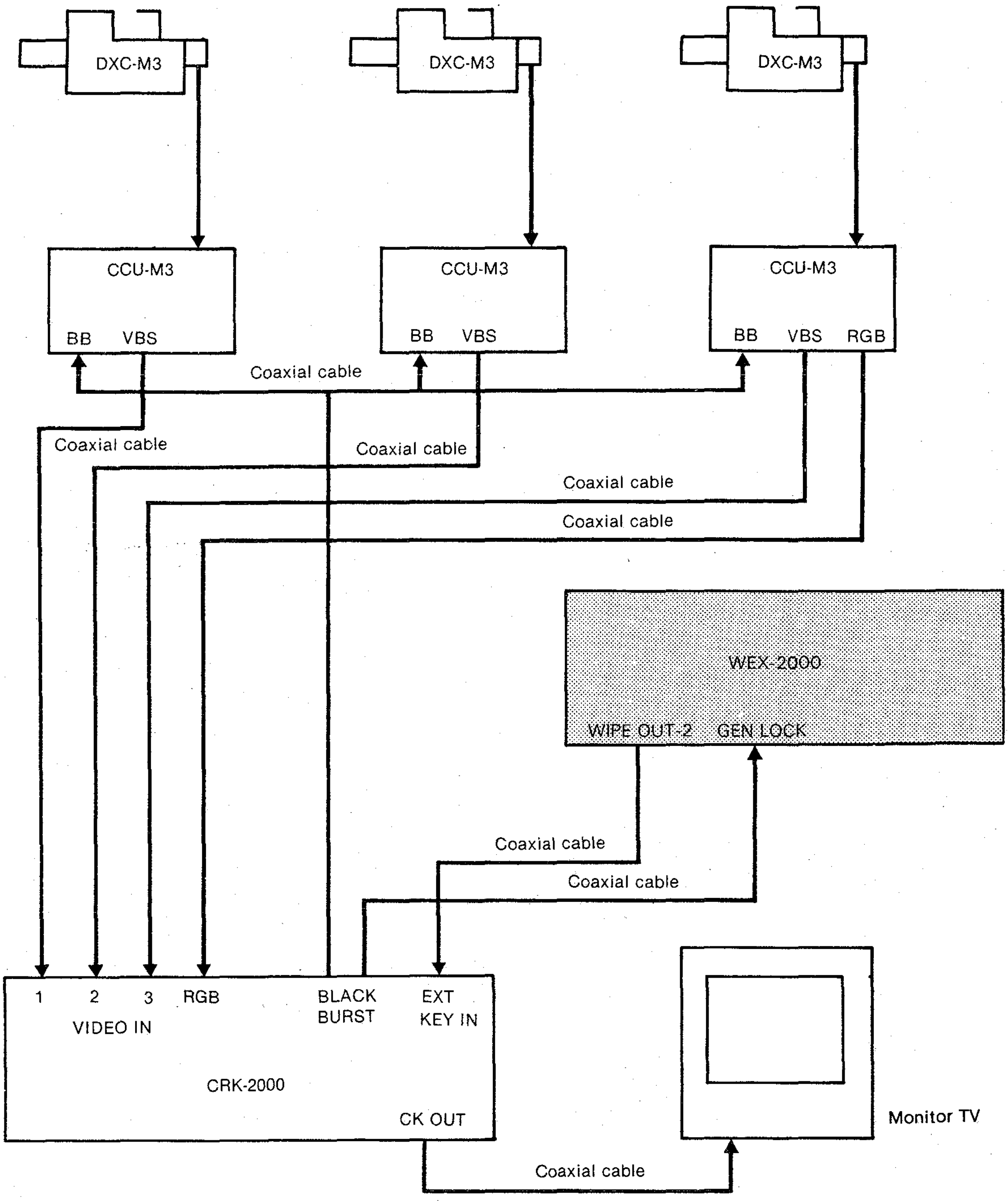
1-6. SYSTEM CONFIGURATION EXAMPLE

1-6-1. Using the CRK-2000 Universal Chroma Keyer

Since the CRK-2000 can be used as a signal switcher and can receive an external keying signal, the wipe pattern generated by the WEX-2000 can be used as an external keying signal.

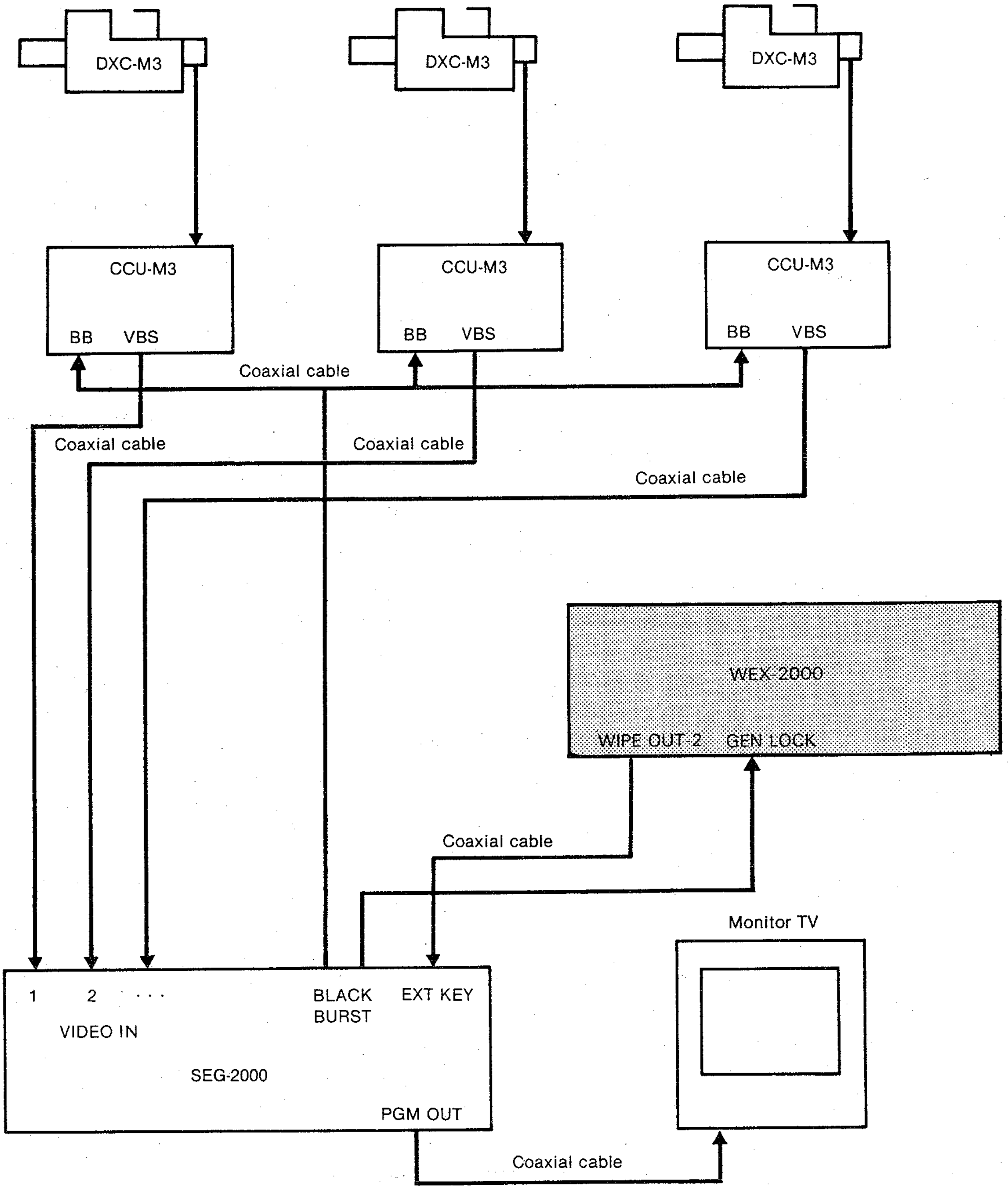
Note

- With this system, the softness/border function is not operable with the WEX-2000, and the tally signal will not be fed to the cameras connected.


DXC-M3
DXC-M3
DXC-M3
CCU-M3
BB VBS
CCU-M3
BB VBS
CCU-M3
BB VBS RGB
Coaxial cable
Coaxial cable
Coaxial cable
Coaxial cable
Coaxial cable
WEX-2000
WIPE OUT-2 GEN LOCK
Coaxial cable
Coaxial cable
1 2 3 RGB
VIDEO IN
BLACK BURST
EXT KEY IN
CRK-2000
CK OUT
Monitor TV
Coaxial cable

1-6-2. Using the SEG-2000 Special Effects Generator

When the WEX-2000 is connected to the EXT KEY connector of the SEG-2000, the WEX-2000 can be used as an external keying signal generator.


DXC-M3
DXC-M3
DXC-M3
CCU-M3
BB
VBS
CCU-M3
BB
VBS
CCU-M3
BB
VBS
Coaxial cable
Coaxial cable
Coaxial cable
Coaxial cable
WEX-2000
WIPE OUT 2
GEN LOCK
Coaxial cable
Monitor TV
1
2
. . .
VIDEO IN
BLACK BURST
EXT KEY
SEG-2000
PGM OUT
Coaxial cable

1-6-3. Operating Procedure

1 Connect the WIPE OUT-2 connector of the WEX-2000 to the EXT KEY connector of the SEG-2000. Be sure to connect the black burst signal from the SEG-2000 to the GEN LOCK IN connector of the WEX-2000.
2 Turn on the SEG-2000, and then the WEX-2000.
3 Press the EXT KEY button of the EFFECTS SELECT buttons of the SEG-2000.
4 Set the EXT KEY LEVEL control of the SEG-2000 to the center position.
5 Select the wipe pattern on the WEX-2000.
●Note that the wipe pattern signal is always supplied from the WIPE OUT-2 connector regardless of the EXTENDER switch setting.
6 Wipe the picture half way by turning the SERVO/TRIM knob.
7 Adjust the EXT KEY LEVEL control of the SEG-2000 so that the wipe pattern appears on the monitor TV screen.

Note

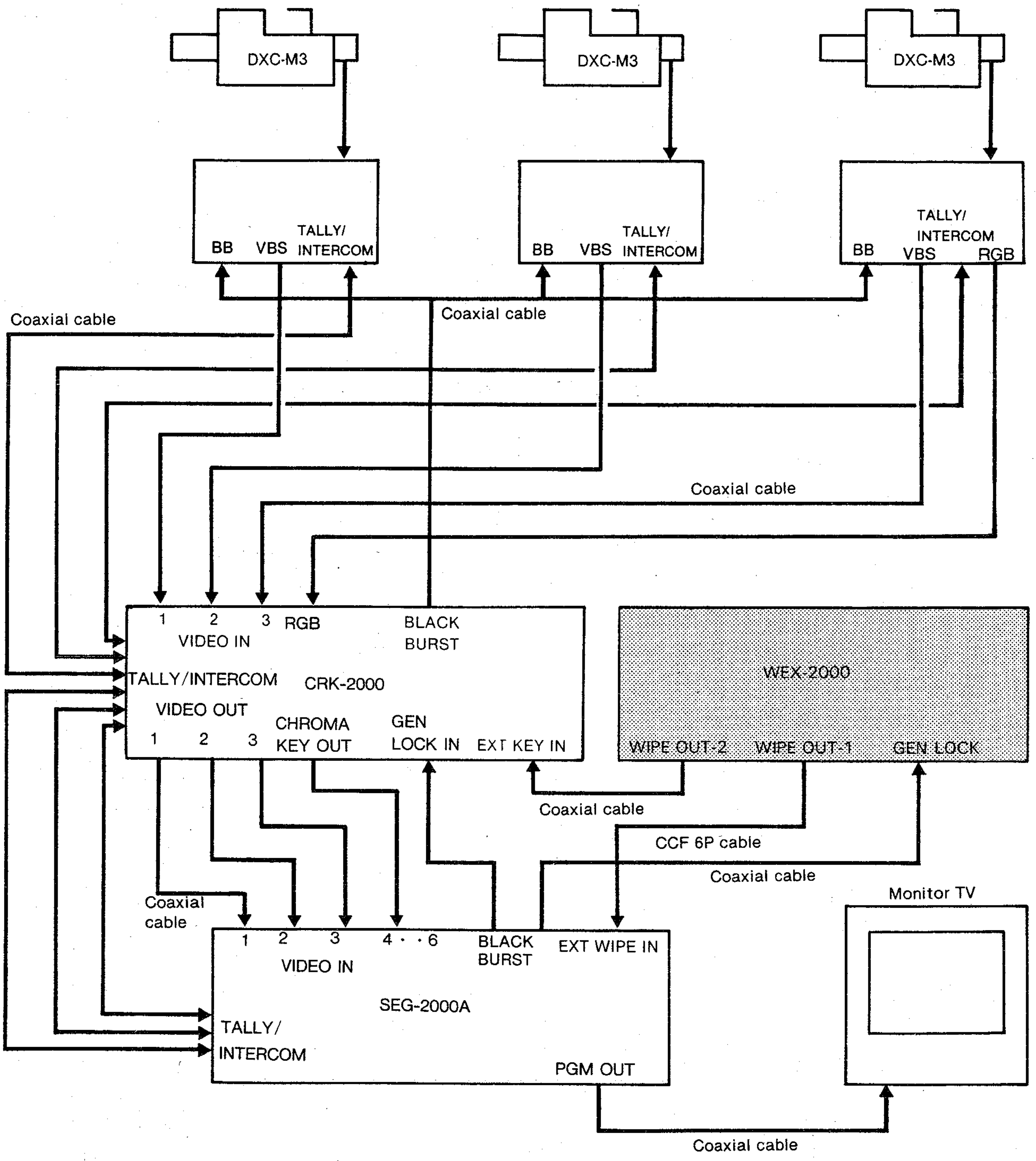
●Be certain to operate the SEG-2000 in the external key mode.

●With this system, the softness and border functions is not operable with the WEX-2000, and the tally signal will not be fed to the connected cameras.

●If the picture cannot be wiped with the above procedure, please consult your Sony dealer.

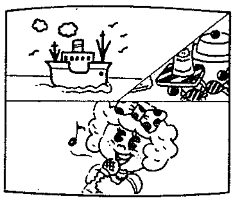
1-6-4. Full System with the SEG-2000A and the CRK-2000

With this system, you can use the WEX-2000 as a keying signal generator for the CRK-2000, or as a wipe pattern generator for the SEG-2000A. If you perform external keying on the CRK-2000, a wipe-to-wipe effect can be obtained by operating the SEG-2000A in the wipe mode. In addition, you can mix the key-inserted picture with another picture.

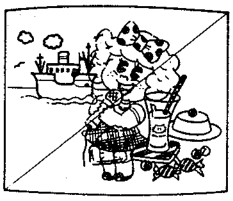

DXC-M3
DXC-M3
DXC-M3
BB
VBS
TALLY/ INTERCOM
BB
VBS
TALLY/ INTERCOM
TALLY/ INTERCOM
BB
VBS
RGB
Coaxial cable
Coaxial cable
Coaxial cable
1
2
3
RGB
VIDEO IN
BLACK BURST
TALLY/INTERCOM
CRK-2000
VIDEO OUT
1
2
3
CHROMA KEY OUT
GEN LOCK IN
EXT KEY IN
WEX-2000
WIPE OUT-2
WIPE OUT-1
GEN LOCK
Coaxial cable
CCF 6P cable
Coaxial cable
Coaxial cable
Monitor TV
1
2
3
4 · · 6
VIDEO IN
BLACK BURST
EXT WIPE IN
SEG-2000A
TALLY/ INTERCOM
PGM OUT
Coaxial cable

1-6-5. Wipe-to-Wipe Operating Procedure

1 Set the EXTENDER switch of the WEX-2000 to OFF.
2 Set the MODE switch of the CRK-2000 to EXT KEY.
3 Set the KEY LEVEL control of the CRK-2000 to the center.
4 Select the key bus picture and the insert bus picture on the CRK-2000.
5 Wipe the picture half way by operating the WEX-2000, and adjust the KEY LEVEL control of the CRK-2000 so that the wipe pattern appears clearly on the output picture of the CRK-2000.
6 Set the SEG-2000A into the wipe mode, and select the pictures to be wiped. One of them should be the picture from the CRK-2000.
7 Operate the SEG-2000A so that it outputs a picture with special effects from the PGM OUT connector. Wipe the picture with the WEX-2000 and the SEG-2000A for the wipe-to-wipe effect.

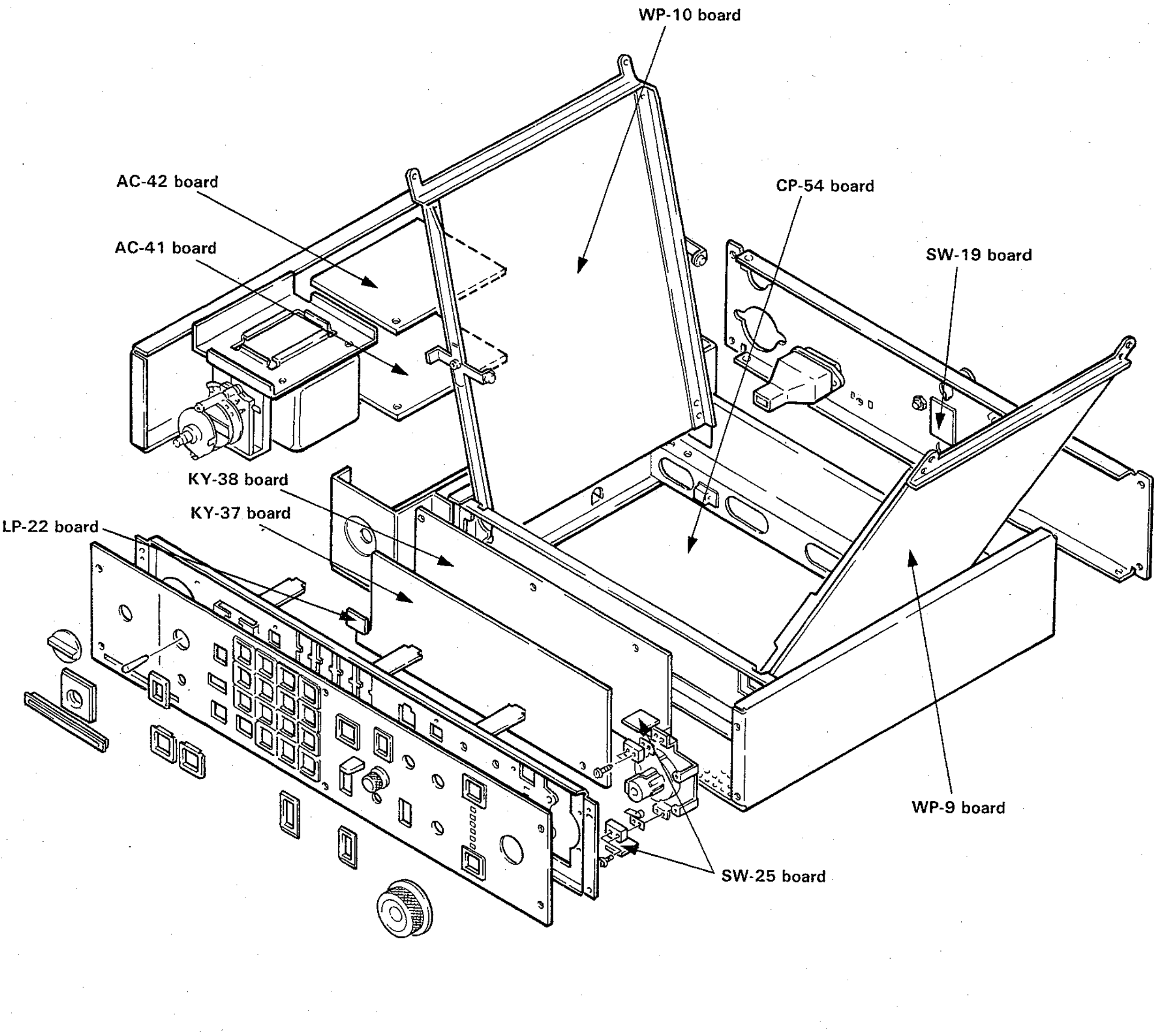


●If you set the SEG-2000A into the mixing mode, you can mix a picture with the picture wiped by the CRK-2000 and the WEX-2000.



SECTION 2
SERVICE INFORMATION

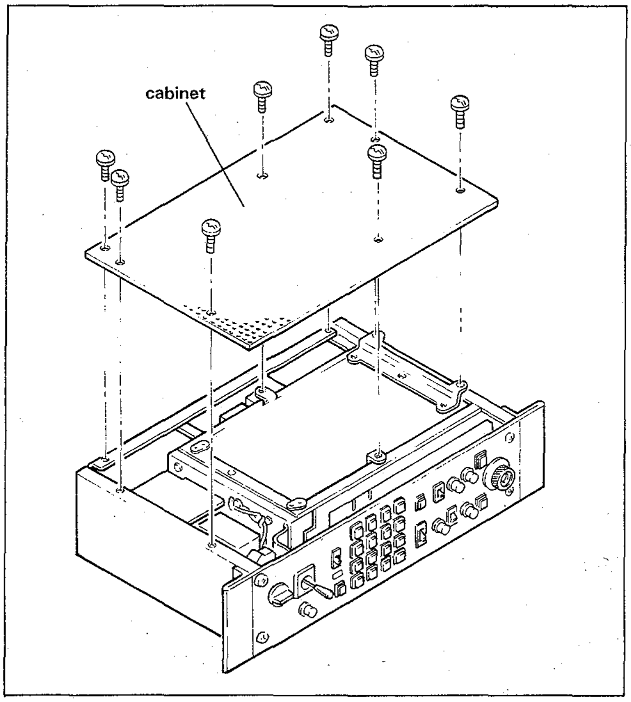
2-1. LOCATION OF THE BOARD


WP-10 board
AC-42 board
CP-54 board
AC-41 board
SW-19 board
KY-38 board
KY-37 board
LP-22 board
WP-9 board
SW-25 board

2-2. NOTES OF SERVICING

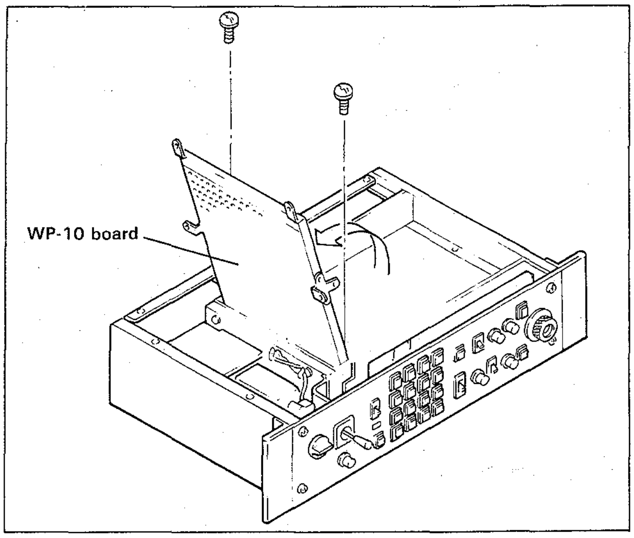
2-2-1. Removal of the cabinet

Remove the 8 cabinet retaining screws.

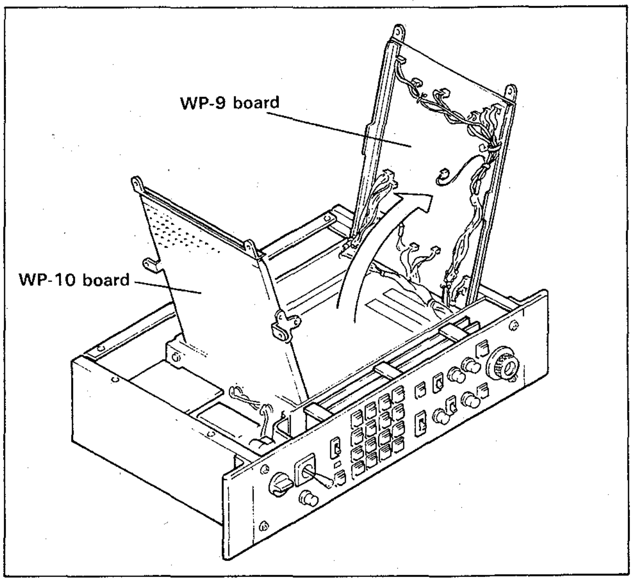


2-2-2. Opening the WP-9, WP-10 boards

Open the WP-10 board as shown below. Next remove the 2 WP-9 board retaining screws.

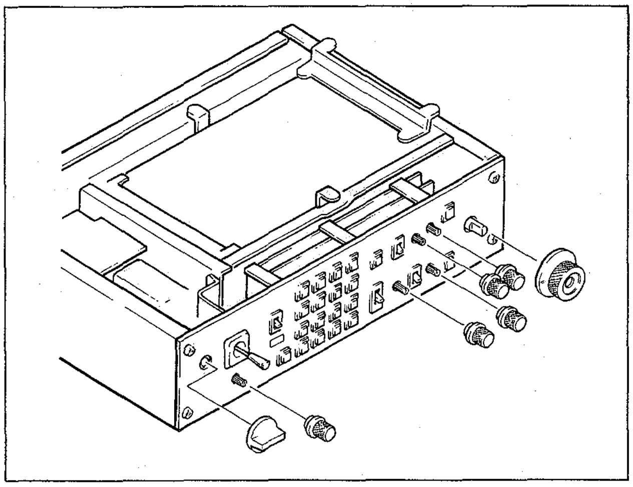


Open the WP-9 board as shown below.

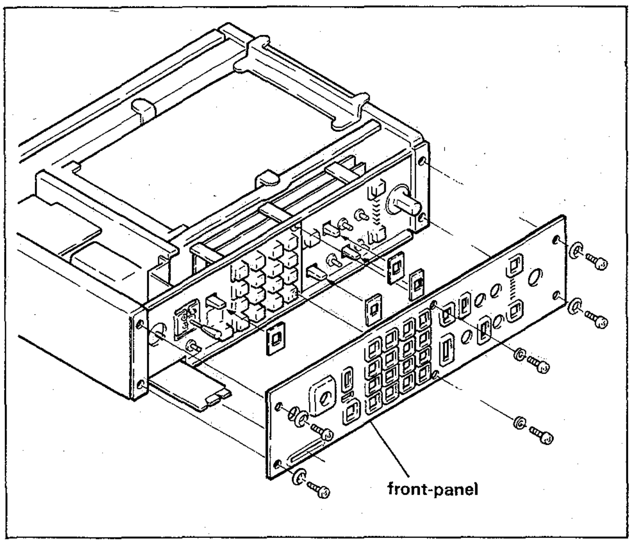

WP-9 board
WP-10 board

2-2-3. Removal of the front-panel

Remove the 7 knobs.

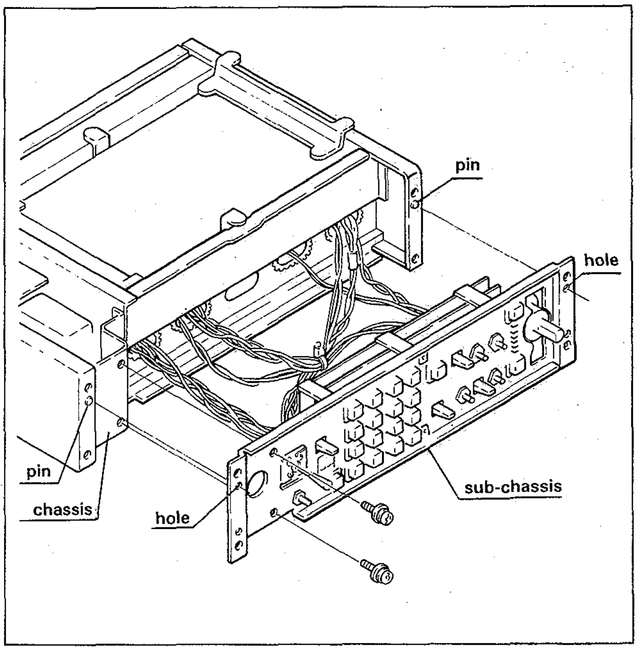


Remove the 6 front-panel retaining screws and the 4 lever switchs' plates.


front-panel

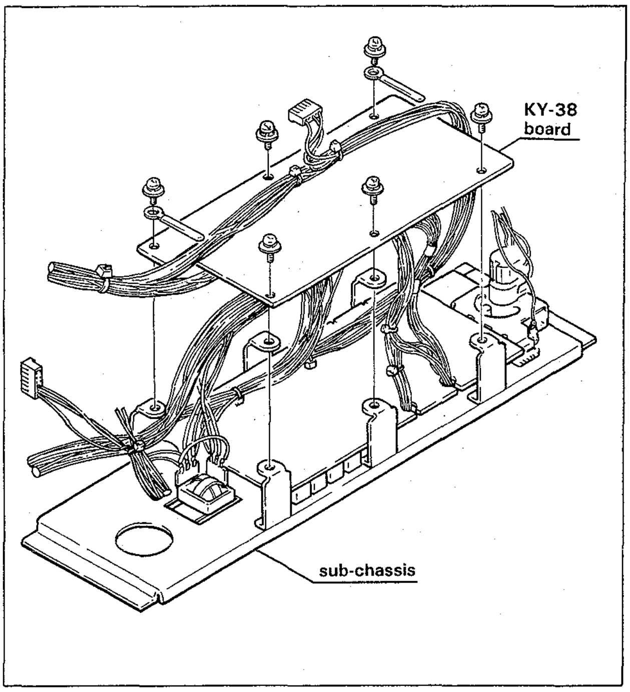
2-2-4. Removal of the sub-chassis

Remove the 2 sub-chassis retaining screws.


pin
hole
pin
chassis
hole
sub-chassis

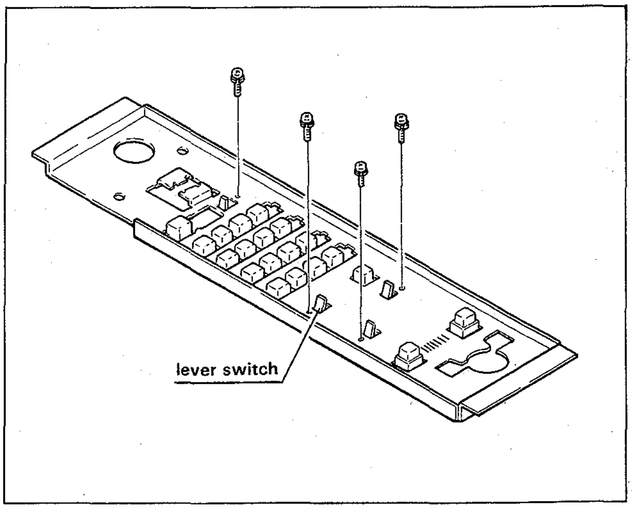
2-2-5. Removal of the KY-38 board

Remove the 6 KY-38 board retaining screws, and remove the 16 connectors (CN1 to CN14A) of the KY-38 board.

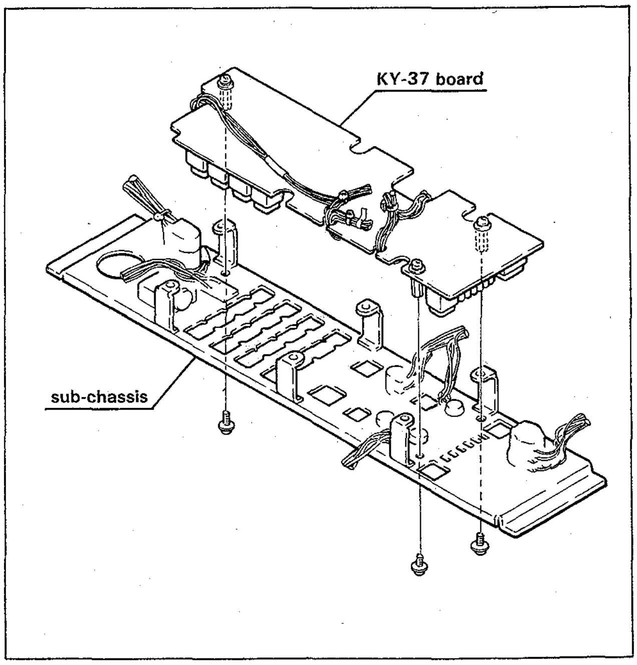

KY-38 board
sub-chassis

2-2-6. Removal of the KY-37 board

Remove the 4 lever switch retaining screws.

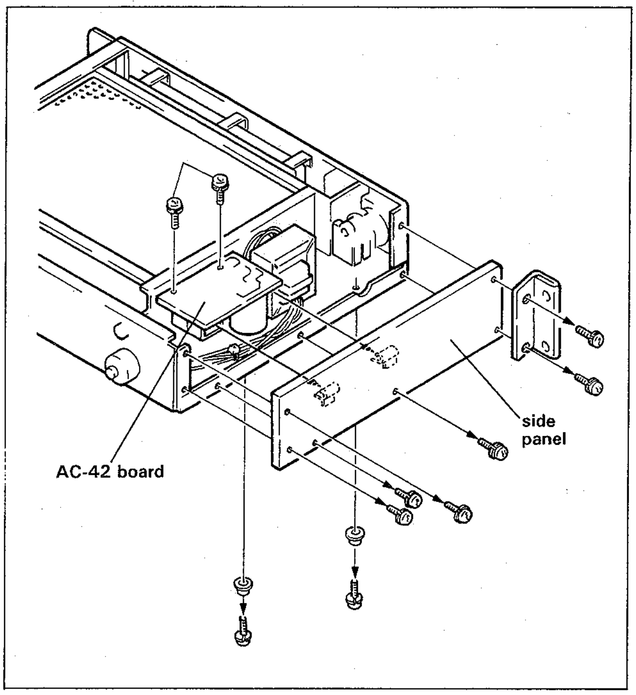

lever switch

Remove the 3 KY-37 board retaining screws, and remove the 9 connectors (CN1 to CN5) of the KY-37 board.

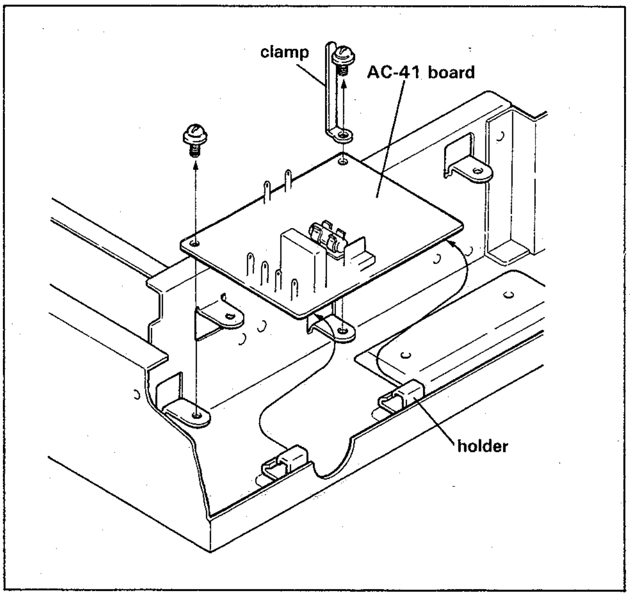

KY-37 board
sub-chassis

2-2-7. Removal of the AC board

Removal the 8 side-panel retaining screws, and remove the 2 AC-42 board retaining screws.

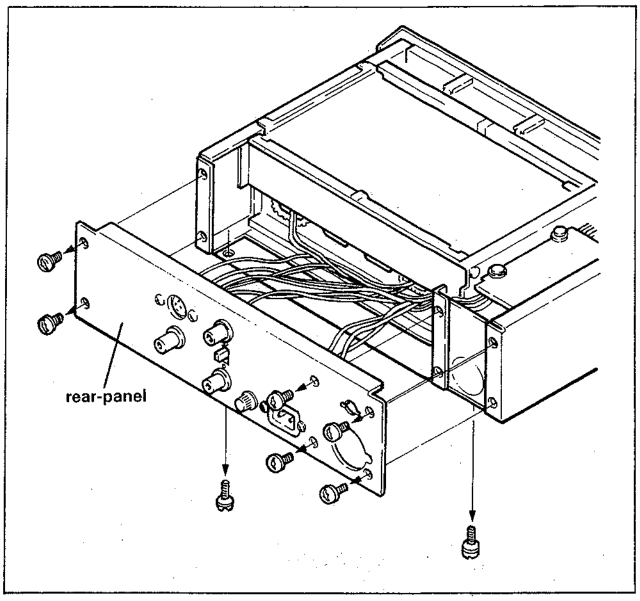

side
panel
AC-42 board

Remove the 2 AC-41 board retaining screws.


clamp
AC-41 board
holder

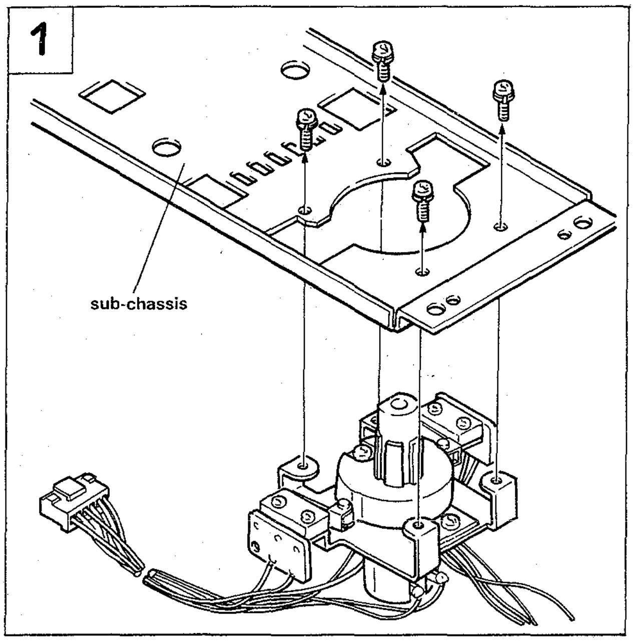
2-2-8. Removal of the rear-panel

Remove the 8 rear-panel retaining screws.

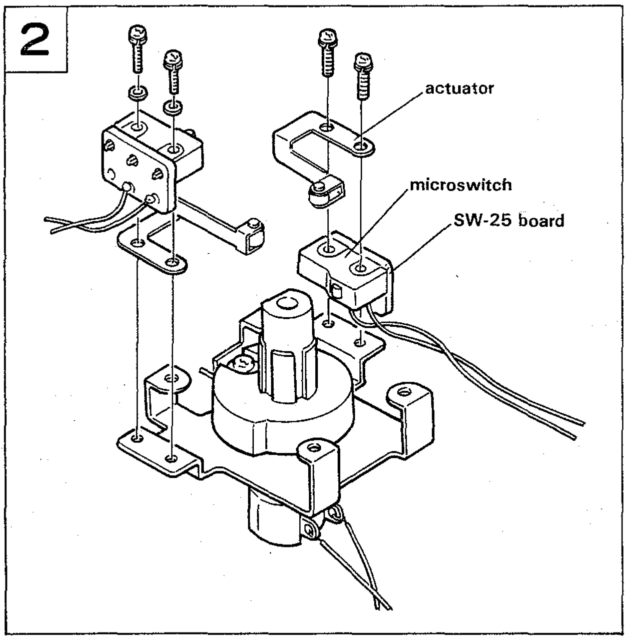


2-3. REPLACEMENT OF SERVO/TRIM KNOB

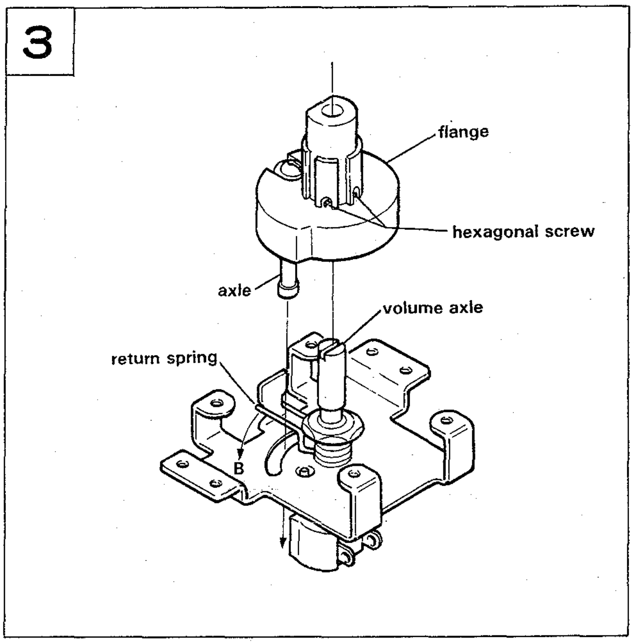
1. Remove the 4 SERVO/TRIM knob Ass'y retaining screws.


1
sub-chassis

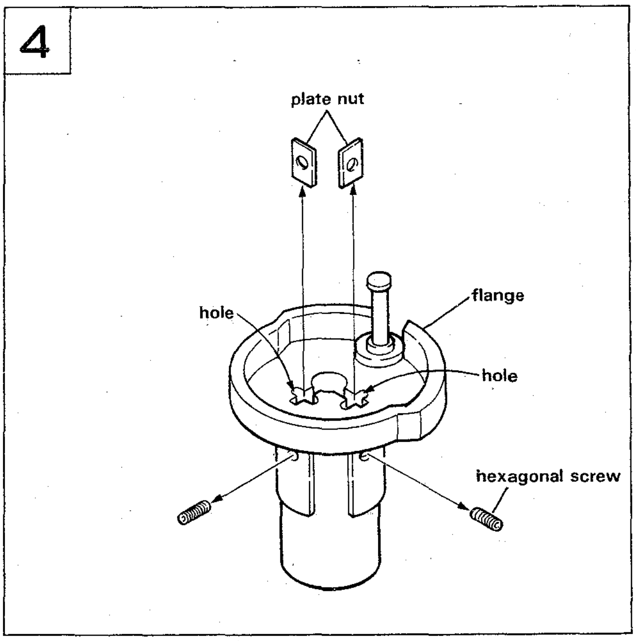
2. Remove the screws as shown below, and remove the microswitches and actuators.


2
actuator
microswitch
SW-25 board

3. Loosen the 2 flange's hexagonal screws by L-wrench. Move the return spring as shown below, and remove the flange from volume axle.

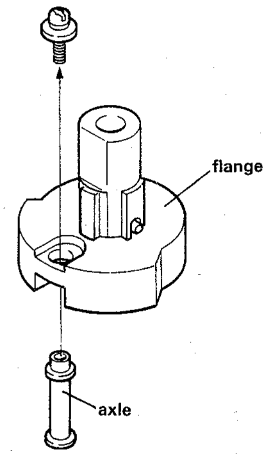

3
flange
hexagonal screw
axle
volume axle
return spring
B

4. Remove the 2 hexagonal screws by L-wrench, and remove the 2 plate nuts.


4
plate nut
hole
flange
hole
hexagonal screw

5. Remove the screw and axle as shown below.

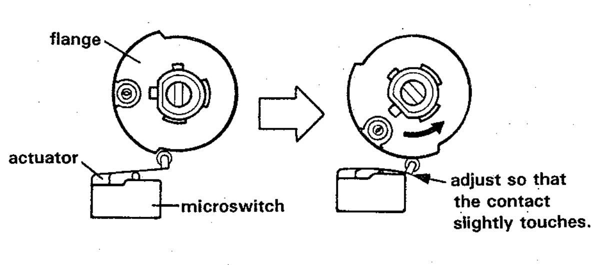
5


flange
axle

6. Assembling of SERVO/TRIM knob Ass'y

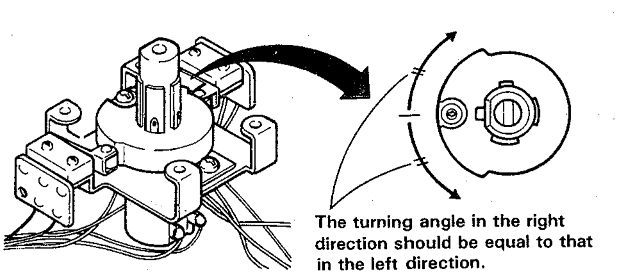
Reverse the disassembling procedures, perform from the step 5 to the step 2, and then perform the following.

1). Loosen the 2 mounting screws of one microswitch (combined with the SW-25 board) and actuator. When the flange is turned in the right and left directions, adjust the microswitch and actuator positions and tighten the screws so as to meet the specification shown in the figure. Then, adjust the other microswitch and actuator in the same manner, and tighten the screws.


flange
actuator
microswitch
adjust so that the contact slightly touches.

2). Turn on the POWER switch and adjust the switches and buttons so that a wipe pattern appears on the monitor picture.

3). Turn the flange in the right and left directions with the status pressed. (The turning angle of the flange in the left direction should be equal to that of it in the right direction.)
Using a monitor, observe the servo wipe speed obtained by turning the flange in the right and left directions.

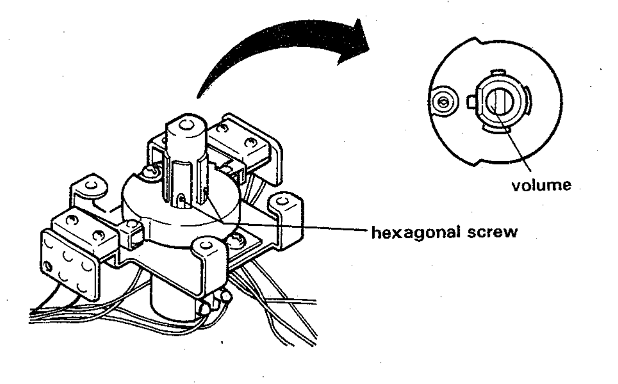

The turning angle in the right direction should be equal to that in the left direction.

4). Loosen the 2 hexagonal screws of the flange by using an L-wrench. Adjust the difference of the servo wipe speed observed in step 3), as described below.

Turning in the left direction > Turning in the right direction ➡ Turn the volume clockwise ↻.

Turning in the left direction < Turning in the right direction ➡ Turn the volume counter-clockwise ↺.

As a result, confirm that the servo wipe speed obtained by turning the flange in the left direction is equal to that obtained by turning it in the right direction.
(Note: Since the 2 hexagonal screws of the flange remain loosened, do not turn the flange.)
After the adjustment is completed, tighten the hexagonal screws of the flange by using an L-wrench.

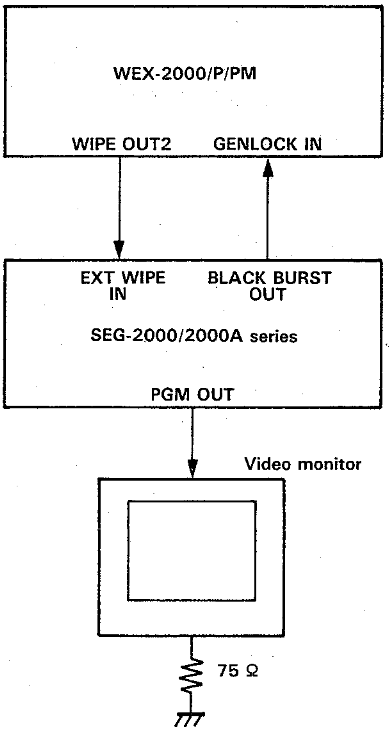

volume
hexagonal screw

5). Repeat step 3)∼4) sereral times.

SECTION 3
ALIGNMENT

3-1. PREPARATION

3-1-1. Connection


WEX-2000/P/PM
WIPE OUT2
GENLOCK IN
EXT WIPE IN
BLACK BURST OUT
SEG-2000/2000A series
PGM OUT
Video monitor
75 Ω

3-1-2. Equipment Required

- Digital voltmeter
- Dual-trace Oscilloscope
- Color monitor
- Special Effects Generator SEG-2000/2000A series

3-1-3. Switch Setting Positions before Adjustments

[for SEG-2000/2000A series]

BACKGROUND mode select switch
A bus : WHT
B bus : COL
PGM/PST switch : PGM
PST bus button : EFECTS
EFFECTS SELECT button : WIPE
BACKGROUND COLOR joystick : Green position
LUM (luminance) control : mechanicalcenter

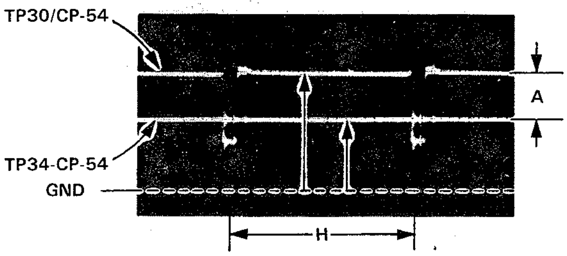
[for WEX-2000/P/PM]

75-ohm termination switch : ON
POSITION switch : OFF
PATTERN MODULATION switch : OFF
SOFTNESS/BORDER selector : HARD
PAIRING switch : OFF
EXTENDER switch : ON
SYMMETRY control : mechanicalcenter
SOFTNESS/BORDER control : mechanicalcenter
WIPE SPEED control : mechanicalcenter
FREQ control : mechanicalcenter
AMPL control : mechanicalcenter

3-3. SYNC SEP. SYSTEM

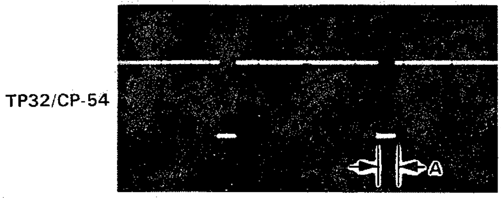
3-3-1. SYNC SEP. DC Level Adjustment

Equipment : Oscilloscope
Preparation : Set the AC/DC selectors at DC, on both CH1 and CH2 of the oscilloscope, and set the vertical deflections of CH1 and CH2 at the same ground reference and same DC voltage range.
Test point : TP30 (GND : chassis)/CP-54 board
TP34 (GND : chassis)/CP-54 board
Adj. point : ⊘ RV8/CP-54 board
Trigger : TP32/CP-54 board
Spec. : A = 500±50mV dc



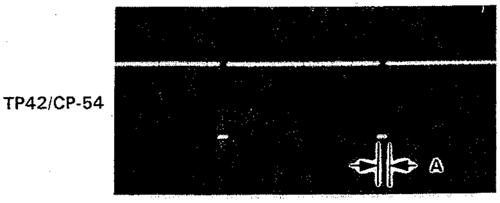
3-3-2. FIX HD width Adjustment

Equipment : Oscilloscope
Test point : TP32 (GND : chassis)/CP-54 board
Adj. point : ⊘ RV10/CP-54 board
Spec. : A = 7.0±0.1μs



3-3-3. FIX VD width Adjustment

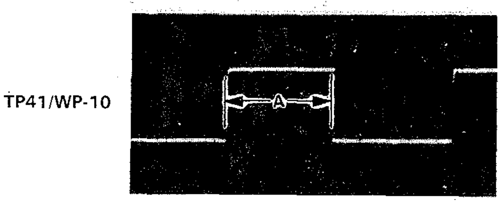
Equipment : Oscilloscope
Test point : TP42 (GND : chassis)/CP-54 board
Adj. point : ⊘ RV12/CP-54 board
Spec. : A = 0.9±0.2ms



3-4. H WIPE GEN. SYSTEM

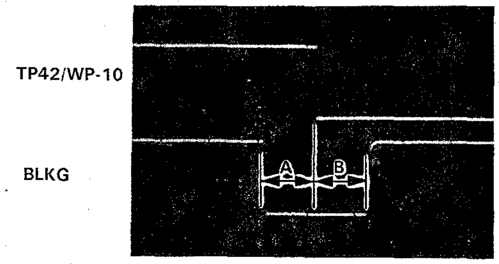
3-4-1. H POSITION Centering Adjustment

Equipment : Oscilloscope
Test point : TP41 (GND : chassis)/WP-10 board
Trigger : TP32/CP-54 board
Adj. point : ⊘ RV6/WP-10 board
Spec. : $A = 30 \pm 0.5 \mu s$



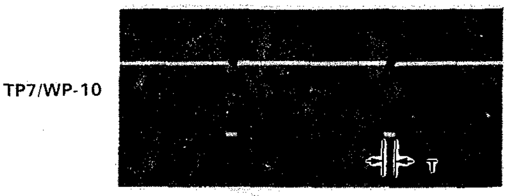
3-4-2. VAR HD phase Adjustment

Equipment : Oscilloscope
Preparation : Remove the two fixing screws from the control panel of SEG-2000/2000A to open the control panel. Connect the CH1 probe of an oscilloscope to the BLKG connector on the SG board of SEG-2000/2000A. (Refer to page 2-1 in the service manual furnished with SEG-2000/2000A.)
Test point : BLKG connector/SG board (SEG-2000/2000A)
TP42/WP-10 board
Trigger : TP32/CP-54 board
Adj. point : ⊘ RV7/WP-10 board
Spec. : A = B



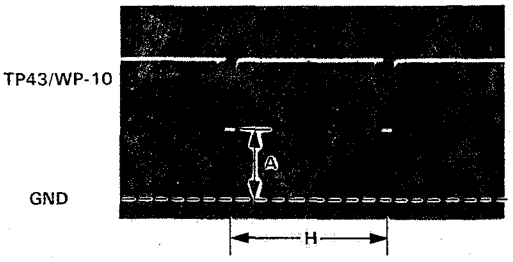
3-4-3. VAR HD width Adjustment

Equipment : Oscilloscope
Test point : TP7 (GND : chassis)/WP-10 board
Trigger : TP32/CP-54 board
Adj. point : ⊘ RV8/WP-10 board
Spec. : $T = 4.0 \pm 0.05 \mu s$



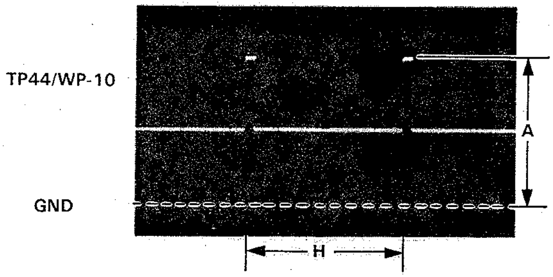
3-4-4. H BLKG Bias Adjustment

Equipment : Oscilloscope
Test point : TP43 (GND : chassis)/WP-10 board
Trigger : TP32/CP-54 board
Adj. point : ⊘ RV28/WP-10 board
Spec. : $A = 1.5 \pm 0.05V$



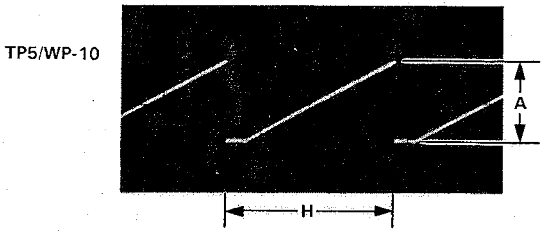
3-4-5. H $\overline{\text{BLKG}}$ Bias Adjustment

Equipment : Oscilloscope
Test point : TP44 (GND : chassis)/WP-10 board
Trigger : TP32/CP-54 board
Adj. point : ⊘ RV27/WP-10 board
Spec. : A = 3.0±0.05V

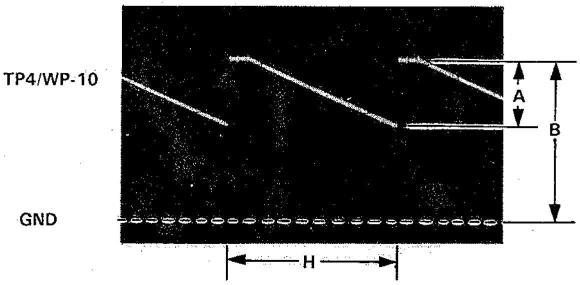


3-4-6. H SAW Waveform Adjustment

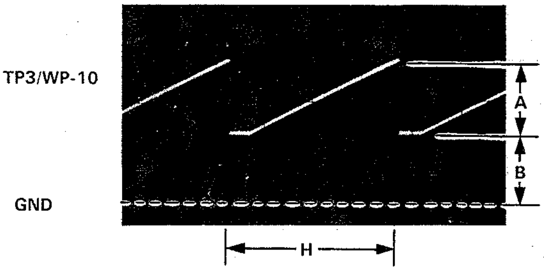
Equipment : Oscilloscope
Trigger : TP32/CP-54 board
Adjust : 1. Test point : TP5 (GND : chassis)/ WP-10 board
Adj. point : ⊘ RV42/WP-10 board
Spec. : A = 1.8±0.05V



2. Preparation : Set ⊘ RV3/WP-10 board to the mechanicalcenter.
Test point : TP4 (GND : chassis)/ WP-10 board
Adjust : A = 1.5±0.05V; ⊘ RV2/WP-10 board
B = 3.0±0.1V; ⊘ RV5/WP-10 board



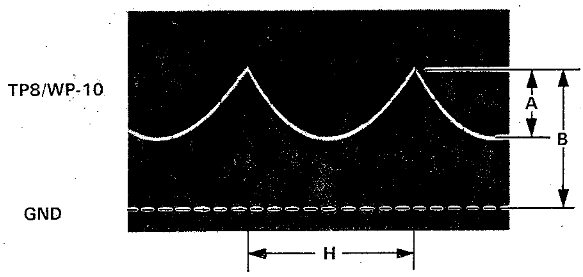
3. Test point : TP3 (GND : chassis)/ WP-10 board
Adjust : A = 1.5±0.05V; ⊘ RV4/WP-10 board
B = 1.5±0.1V; ⊘ RV44/WP-10 board



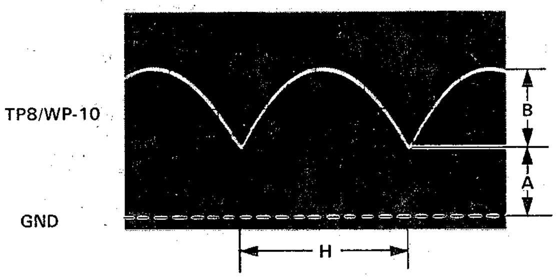
Note: When carring out this adjustment, be sure to carry out 3-6-7. Wipe No.128 Adjustment.

3-4-7. H Parabola Waveform Adjustment

Equipment : Oscilloscope
Preparation : Set ⊘ RV12/WP-10 board to the mechanicalcenter.
Trigger : TP32/CP-54 board
Adjust : 1. Test point : TP8 (GND :chassis)/ WP-10 board
Adjust : A = 2.0±0.05V; ⊘ RV11/WP-10 board
B = 3.4±0.05V; ⊘ RV14/WP-10 board



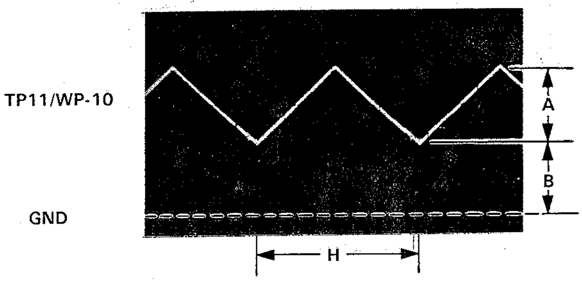
2. Test point : TP9 (GND :chassis)/ WP-10 board
Adjust : A = 1.5±0.05V; ⊘ RV45/WP-10 board
B = 2.0±0.05V; ⊘ RV13/WP-10 board



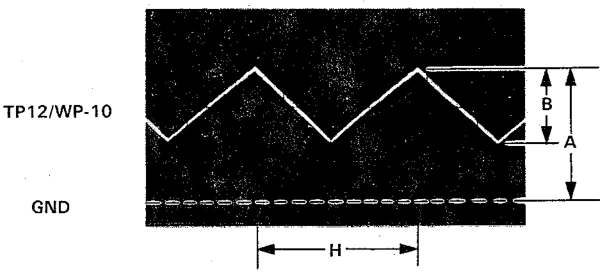
Note: When carring out this adjustment, be sure to carry out 3-6-13. Circular Wipe Adjustment and 3-6-14. Circular Wipe Pairing Adjustment.

3-4-8. H Triangle Waveform Adjustment

Equipment : Oscilloscope
Preparation : Set ⊘ RV16/WP-10 board to the mechanicalcenter.
Trigger : TP32/CP-54 board
Adjust : 1. Test point : TP11 (GND : chassis)/ WP-10 board
Adjust : A = 1.5±0.05V; ⊘ RV15/WP-10 board
B = 1.5±0.1V; ⊘ RV18/WP-10 board



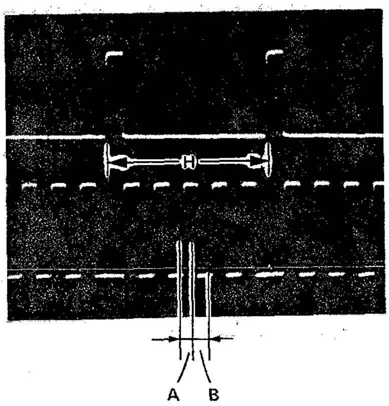
2. Test point : TP12 (GND : chassis)/ WP-10 board
Adjust : A = 3.0±0.1V; ⊘ RV46/WP-10 board
B = 1.5±0.05V; ⊘ RV17/WP-10 board



Note: When carring out this adjustment, be sure to carry out 3-6-9.Diamond Edge Adjustment and 3-6-10. Diamond Pairing Adjustment.

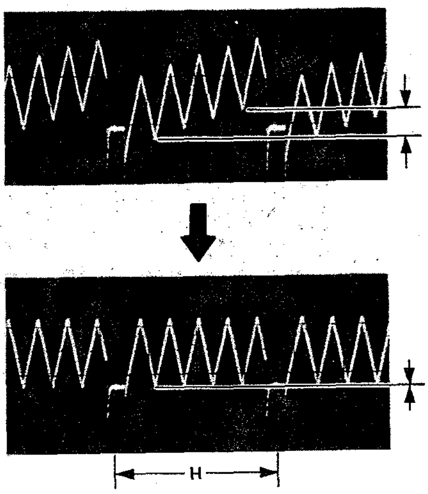
3-4-9. H Triangle higher harmonic width Adjustment

Equipment : Oscilloscope
Test point : TP2 (GND : chassis)/WP-10 board
TP14 (GND : chassis)/WP-10 board
Trigger : TP32/CP-54 board
Adj. point : ⊘ RV19/WP-10 board
⊘ RV20/WP-10 board
Spec. : Confirm that the number of pulses at TP14 on the WP-10 board is five within one horizontal scanning period.
A = 5.8±0.05μs
B = 5.6±0.05μs

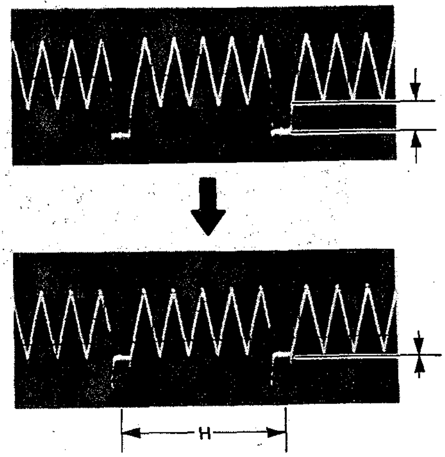


3-4-10. H Triangle higher harmonic Adjustment

Equipment : Oscilloscope
Test point : TP36 (GND : chassis)/WP-10 board
Trigger : TP32/CP-54 board
Adjust : 1. Adj. point : ⊘RV21/WP-10 board

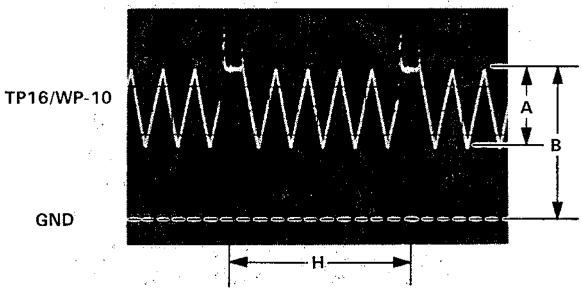


2. Adj. point : ⊘RV22/WP-10 board

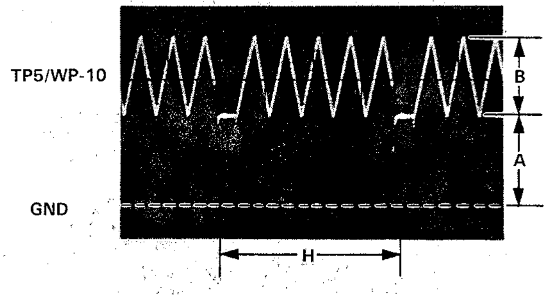


3-4-11. H Harmonic Waveform Adjustment

Equipment : Oscilloscope
Preparation : Set ⊘ RV24/WP-10 board to the mechanicalcenter.
Trigger : TP32/CP-54 board
Adjust : 1. Test point : TP16 (GND : chassis)/WP-10 board
Adjust : A = 1.5±0.1V; ⊘ RV23/WP-10 board
B = 3.0±0.1V; ⊘ RV47/WP-10 board



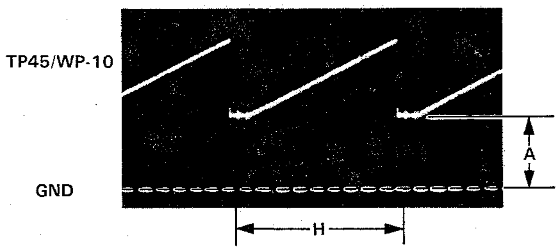
2. Test point : TP15 (GND : chassis)/WP-10 board
Adjust : A = 1.5±0.1V; ⊘ RV26/WP-10 board
B = 1.5±0.1V; ⊘ RV25/WP-10 board



Note: When carring out this adjustment, be sure to carry out 3-6-11. Multi-Diamond Pattern Adjustment and 3-6-12. Multi-Diamond Pairing Adjustment.

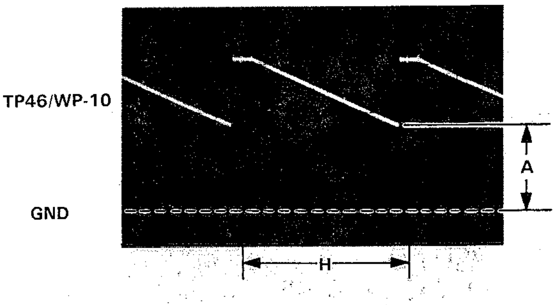
3-4-12. +H Clamp Level Adjustment

Equipment : Oscilloscope
Preparation : Set the wipe select key to ◩.
Test point : TP45 (GND : chassis)/WP-10 board
Trigger : TP32/CP-54 board
Adj. point : ⊘ RV32/WP-10 board
Spec. : A = 2.0±0.05V



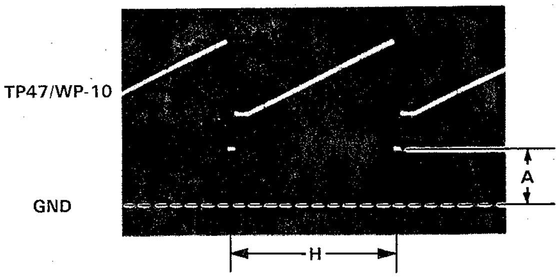
3-4-13. −H Clamp Level Adjustment

Equipment : Oscilloscope
Preparation : Set the wipe select key to ◩.
Test point : TP46 (GND : chassis)/WP-10 board
Trigger : TP32/CP-54 board
Adj. point : ⊘ RV31/WP-10 board
Spec. : A = 2.0±0.05V



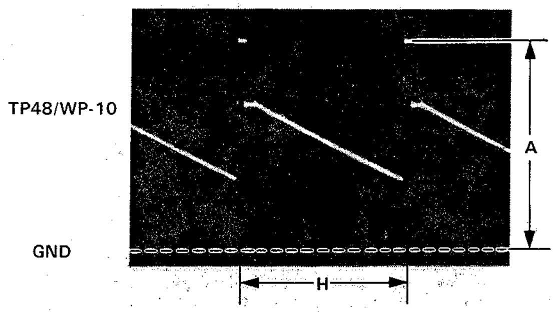
3-4-14. TWIN KILLER Level Adjustment-1.

Equipment : Oscilloscope
Preparation : Set the WIPE SELECT key to ◩.
Test point : TP47 (GND : chassis)/WP-10 board
Trigger : TP32/CP-54 board
Adj. point : ⊘ RV30/WP-10 board
Spec. : $A = 1.3^{+0.1}_{-0.05}$ V



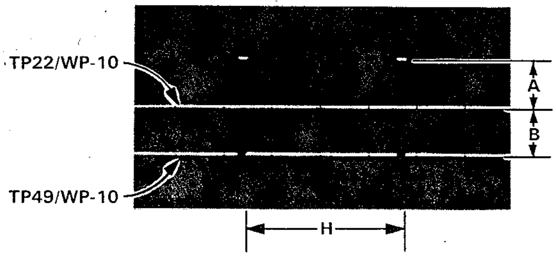
3-4-15. TWIN KILLER Level Adjustment-2

Equipment : Oscilloscope
Preparation : Set the WIPE SELECT. key to ◩ .
Test point : TP48 (GND : chassis)/WP-10 board
Trigger : TP32/CP-54 board
Adj. point : ⊘ RV29/WP-10 board
Spec. : A = 4.0±0.05V



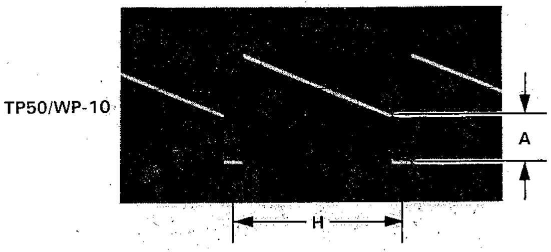
3-4-16. H Pairing Slice Level Adjustment

Equipment : Oscilloscope
Preparation : Set the AC/DC selectors at DC, on both CH1 and CH2 of the oscilloscope, and set the vertical deflections of CH1 and CH2 at the same ground reference and same DC voltage range.
Set the PAIRING switch to "ON".
Test point : TP49 (GND : chassis)/WP-10 board
TP22 (GND : chassis)/WP-10 board
Trigger : TP42/WP-10 board
Adj. point : ⊘ RV37/WP-10 board



3-4-17. H WIPE BLKG Level Adjustment

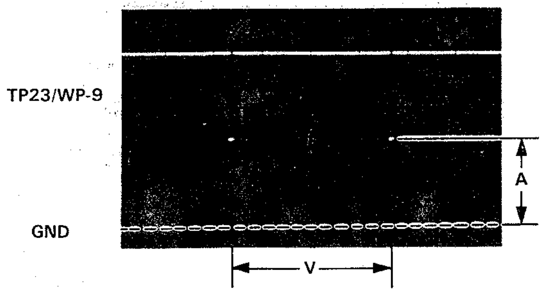
Equipment : Oscilloscope
Preparation : Set the wipe key to ◩ .
Test point : TP50 (GND : chassis)/WP-10 board
Trigger : TP32/CP-54 board
Adj. point : ⊘ RV36/WP-10 board
Spec. : A = 1.0±0.05V



3-5. V WIPE GEN. SYSTEM

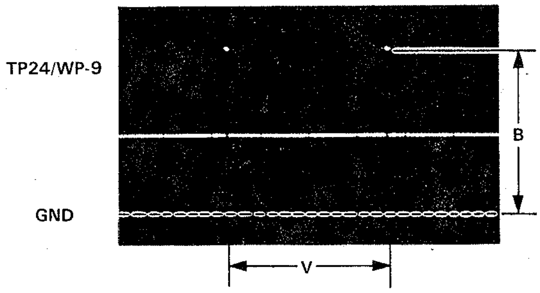
3-5-1. V BLKG Adjustment

Equipment : Oscilloscope
Test point : TP23 (GND : chassis)/WP-9 board
Trigger : TP1/WP-9 board
Adj. point : ⊘ RV23/WP-9 board
Spec. : A = 1.5±0.05Vdc



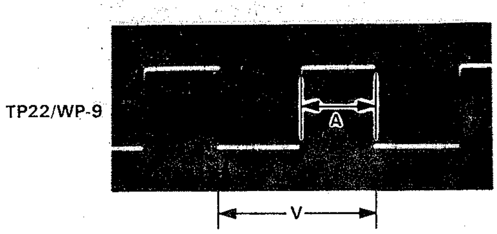
3-5-2. V $\overline{\text{BLKG}}$ Adjustment

Equipment : Oscilloscope
Test point : TP24 (GND : chassis)/WP-9 board
Trigger : TP1/WP-9 board
Adj. point : ⊘ RV33/WP-9 board
Spec. : A = 3.0±0.05Vdc

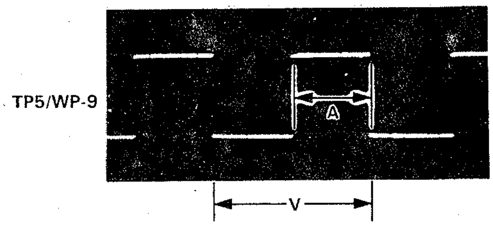


3-5-3. V POSITION Centering Adjustment

Equipment : Oscilloscope
Trigger : TP42/CP-54 board
Adjust : 1. Test point : TP22 (GND : chassis)/WP-9 board
Adj. point : ⊘ RV4/WP-9 board
Spec. : [For NTSC, PAL-M]
A = 8.0±0.1ms
[For PAL]
A = 9.4±0.1ms

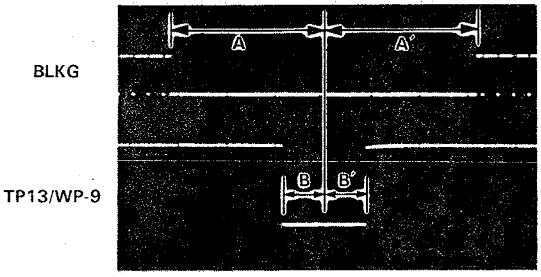


2. Test point : TP5 (GND : chassis)/WP-9 board
Adj. point : ⊘ RV5 (GND : chassis)/WP-9 board
Spec. : [For NTSC, PAL-M]
A = 8.1±0.1ms
[For PAL]
A = 9.8±0.1ms



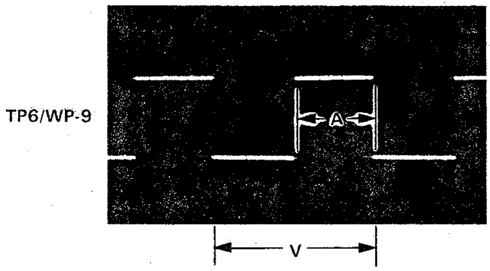
3-5-4. VAR VD phase pre-Adjustment

Equipment : Oscilloscope
Preparation : Remove the two fixing screws from the control panel of SEG-2000/2000A to open the control panel. Connect the CH1 probe of an oscilloscope to the BLKG connector on the SG board of SEG-2000/2000A. (Refer to page 2-1 in the service manual furnished with SEG-2000/2000A.)
Test point : BLKG connector/SG board (SEG-2000/2000A)
TP13/WP-9 board
Trigger : TP42/CP-54 board
Adj. point : ⊘ RV5/WP-9 board
Spec. : A = A′, B = B′

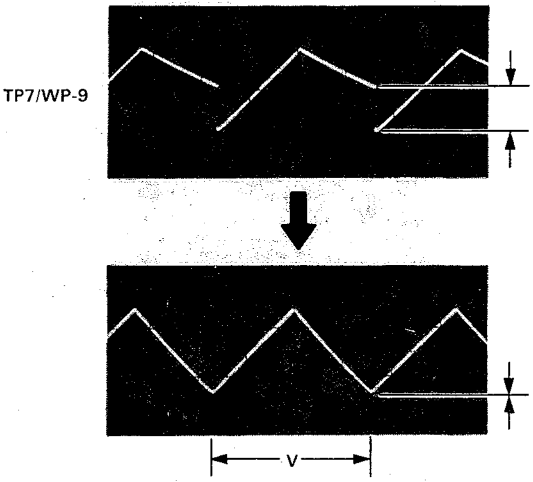


3-5-5. V Triangle 1/2V Adjustment

Equipment : Oscilloscope
Trigger : TP42/CP-54 board
Adjust : 1. Test point : TP6 (GND : chassis)/WP-9 board
Adj. point : ⊘ RV35/WP-9 board
Spec. : [For NTSC, PAL-M]
A = 8.1±0.05ms
[For PAL]
A = 9.8±0.05ms

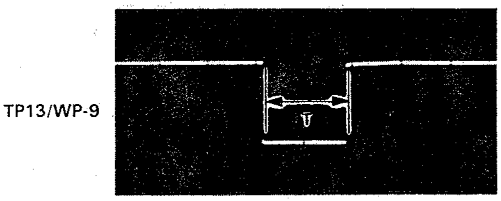


2. Test point : TP7 (GND : chassis)/WP-9 board
Adj. point : ⊘ RV36/WP-9 board



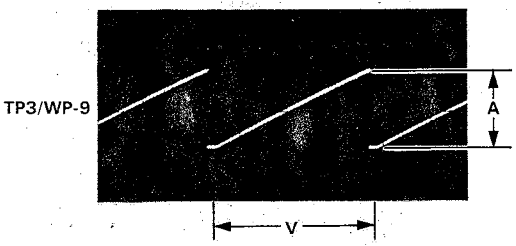
3-5-6. VAR VD width Adjustment

Equipment : Oscilloscope
Test point : TP13 (GND : chassis)/WP-9 board
Trigger : TP1/WP-9 board
Adj. point : ⊘ RV6/WP-9 board
Spec. : T = 0.35±0.05ms

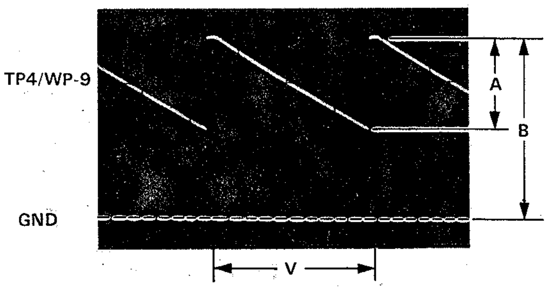


3-5-7. V SAW Waveform Adjustment

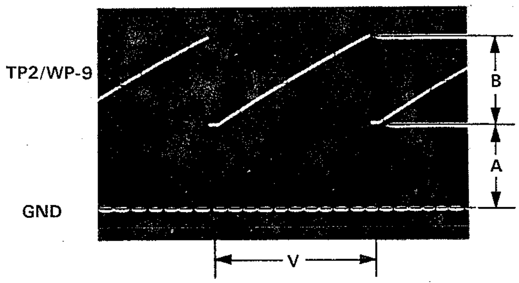
Equipment : Oscilloscope
Trigger : TP42/CP-54 board
Adjust : 1. Test point : TP3 (GND : chassis)/WP-9 board
Adj. point : ⊘ RV34/WP-9 board
Spec. : A = 1.8±0.05V



2. Preparation : Set ⊘ RV2/WP-9 board to the mechanicalcenter.
Test point : TP4 (GND : chassis)/WP-9 board
Adjust : A = 1.5±0.05V;
⊘ RV1/WP-9 board
B = 3.0±0.1V;
⊘ RV39/WP-9 board



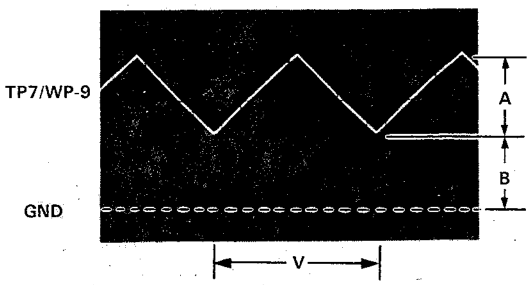
3. Test point : TP2 (GND : chassis)/WP-9 board
Adjust : A = 1.5±0.1V;
⊘ RV38/WP-9 board
B = 1.5±0.05V;
⊘ RV3/WP-9 board



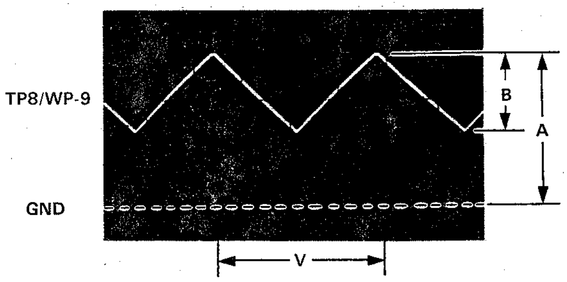
Note: When carring out this adjustment, be sure to carry out 3-6-6. Skew Wipe Adjustment and 3-6-8. Wipe No. 144, 112 Adjustment.

3-5-8. V Triangle Waveform Adjustment

Equipment : Oscilloscope
Preparation : Set ⊘ RV10/WP-9 board to the mechanicalcenter.
Trigger : TP42/CP-54 board
Adjust : 1. Test point : TP7 (GND : chassis)/WP-9 board
Adjust : A = 1.3±0.05V;
⊘ RV9/WP-9 board
B = 1.5±0.1V;
⊘ RV12/WP-9 board



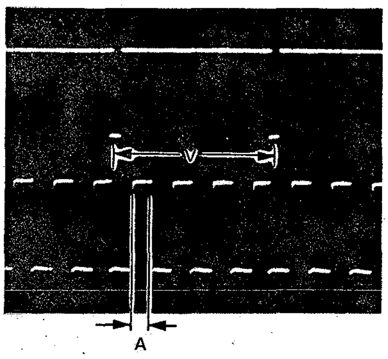
2. Test point : TP8 (GND : chassis)/WP-9 board
Adjust : A = 3.0±0.1V;
⊘ RV40/WP-9 board
B = 1.3±0.05V;
⊘ RV11/WP-9 board



Note: When carring out this adjustment be sure to carry out 3-6-10. Diamond Edge Adjustment and 3-6-11. Diamond Pairing Adjustment.

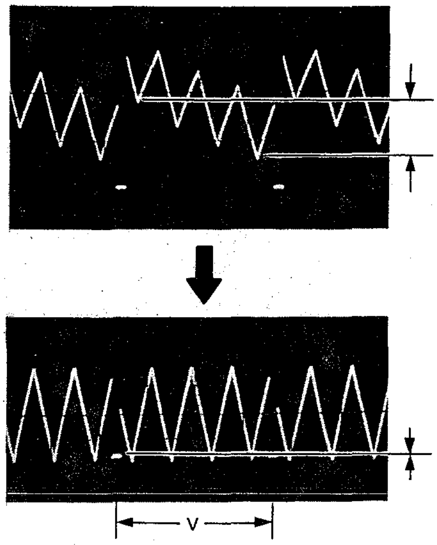
3-5-9. V Triangle higher harmonic width Adjustment

Equipment : Oscilloscope
Test point : TP1 (GND : chassis)/WP-9 board
TP10 (GND : chassis)/WP-9 board
Trigger : TP42/CP-54 board
Adj. point : ⊘ RV13/WP-9 board
Spec. : Confirm that the number of pulses at TP14 on the WP-9 board is four within one vertical scanning period.
A = 2.0±0.1ms [For NTSC, PAL-M]
A = 2.4±0.1ms [For PAL]

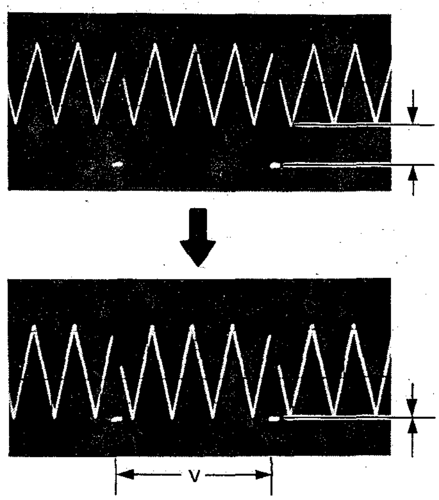


3-5-10. V Triangle higher harmonic Adjustment

Equipment : Oscilloscope
Test point : TP31 (GND : chassis)/WP-9 board
Trigger : TP42/CP-54 board
Adjust : 1. Adj. point : ⊘ RV14/WP-9 board

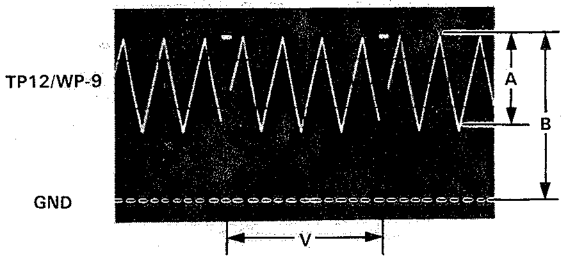


2. Adj. point : ⊘ RV15/WP-9 board

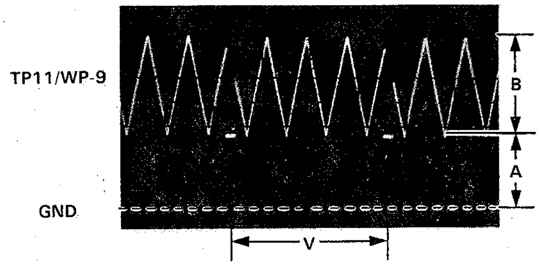


3-5-11. V Harmonic Waveform Adjustment

Equipment : Oscilloscope
Preparation : Set ⊘ RV17/WP-9 board to the mechanicalcenter.
Trigger : TP42/CP-54 board
Adjust : 1. Test point : TP12 (GND : chassis)/ WP-9 board
Adjust : A = 1.5±0.1V;
⊘ RV16/WP-9 board
B = 3.0±0.1V;
⊘ RV41/WP-9 board



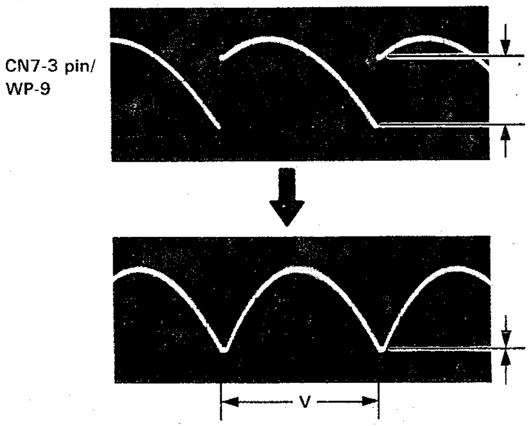
2. Test point : TP11 (GND : chassis)/ WP-9 board
Adjust : A = 1.5±0.1V;
⊘ RV19/WP-9 board
B = 1.5±0.1V;
⊘ RV17/WP-9 board



Note: When carring out this Adjustment, be sure to carry out 3-6-11. Multi-Diamond Pattern Adjustment and 3-6-12. Multi-Diamond Pairing Adjustment.

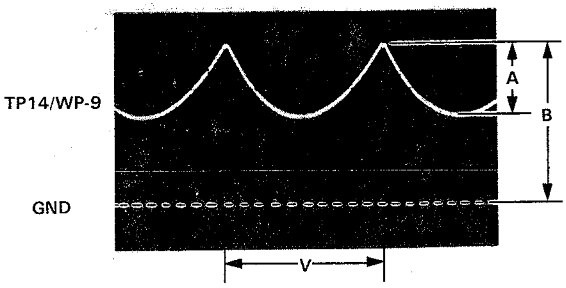
3-5-12. V Parabola balance Adjustment

Equipment : Oscilloscope
Test point : CN7-3 pin//WP-9 board
Trigger : TP1/WP-9 board
Adj. point : ⊘ RV37/WP-9 board

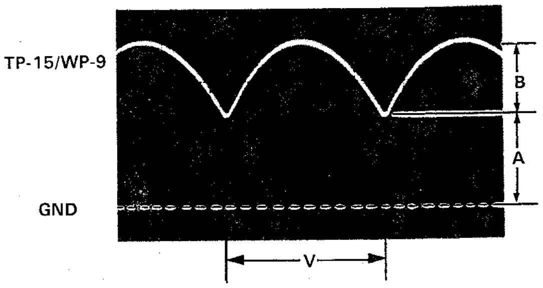


3-5-13. V Parabola Waveform Adjustment

Equipment : Oscilloscope
Preparation : Set ⊘ RV21/WP-9 board to the mechanicalcenter.
Trigger : TP42/CP-54 board
Adjust : 1. Test point : TP14 (GND : chassis)/ WP-9 board
Adjust : [For NTSC, PAL-M]
A = 1.1±0.1V;
⊘ RV20/WP-9 board
B = 3.0±0.1V;
⊘ RV42/WP-9 board
[For PAL]
A = 0.95±0.1V;
⊘ RV20/WP-9 board
B = 3.0±0.1V;
⊘ RV42/WP-9 board



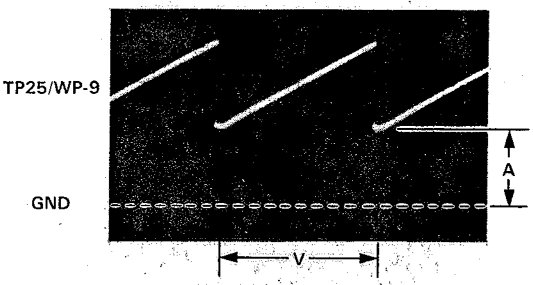
2. Test point : TP15 (GND : chassis)/ WP-9 board
Adjust : [For NTSC, PAL-M]
A = 1.5±0.1V;
⊘ RV32/WP-9 board
B = 1.1±0.1V;
⊘ RV22/WP-9 board
[For PAL]
A = 1.5±0.1V;
⊘ RV32/WP-9 board
B = 0.95±0.1V;
⊘ RV22/WP-9 board



Note: When carring out this adjustment, be sure to carry out 3-6-13. Circular Wipe Adjustment and 3-6-14. Circular Wipe Pairing Adjustment.

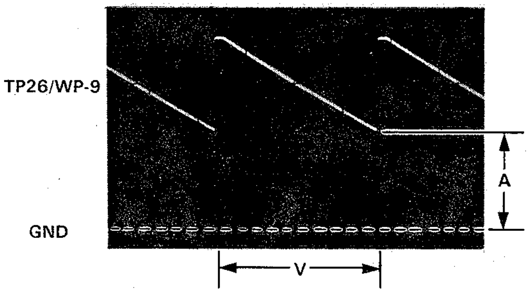
3-5-14. +V Clamp Level Adjustment

Equipment : Oscilloscope
Test point : TP25 (GND : chassis)/WP-9 board
Trigger : TP42/CP-54 board
Adj. point : ⊘ RV30/WP-9 board
Spec. : A = 2.0±0.05V



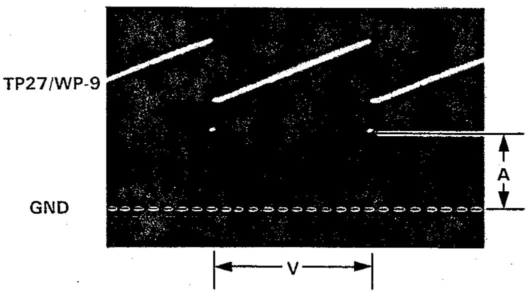
3-5-15. −V Clamp Level Adjustment

Equipment : Oscilloscope
Test point : TP26 (GND : chassis)/WP-9 board
Trigger : TP42/CP-54 board
Adj. point : ⊘ RV29/WP-9 board
Spec. : A = 2.0±0.05V



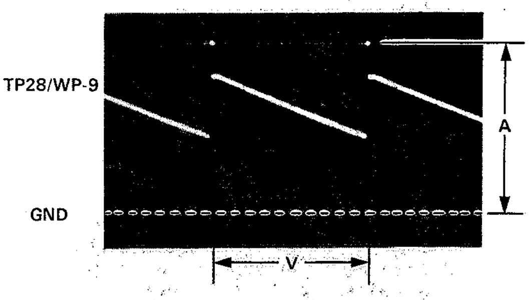
3-5-16. TWIN KILLER Level Adjustment-1

Equipment : Oscilloscope
Test point : TP27 (GND : chassis)/WP-9 board
Trigger : TP1/WP-9 board
Adj. point : ⊘ RV28/WP-9 board
Spec. : A = 1.3±0.05V



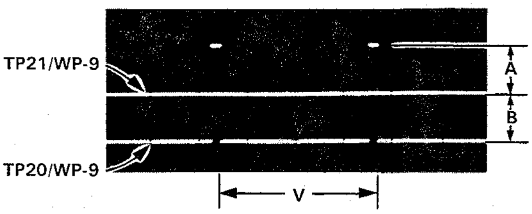
3-5-17. TWIN KILLER Level Adjustment-2

Equipment : Oscilloscope
Test point : TP28 (GND : chassis)/WP-9 board
Trigger : TP1/WP-9 board
Adj. point : ⊘ RV27/WP-9 board
Spec. : A = 4.2±0.05V



3-5-18. V Pairing Slice Level Adjustment

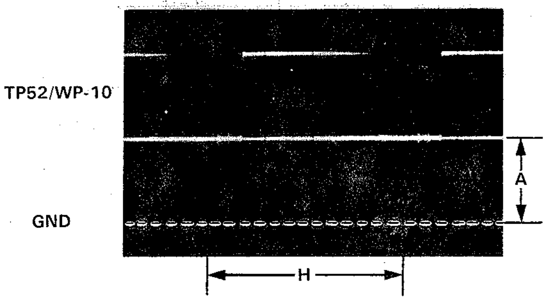
Equipment : Oscilloscope
Preparation : Set the AC/DC selectors at DC, on both CH1 and CH2 of the oscilloscope, and set the vertical deflections of CH1 and CH2 at the same ground reference and same DC voltage range.
Set the PAIRING switch to "ON".
Test point : TP20 (GND : chassis)/WP-9 board
TP21 (GND : chassis)/WP-9 board
Trigger : TP1/WP-9 board
Adj. point : ⊘ RV26/WP-9 board



3-6. WIPE OUT SYSTEM

3-6-1. WP KEY Pulse Adjustment

Equipment : Oscilloscope
Preparation : Set the EXTENDER IN/OUT switch to "ON".
Test point : TP52 (GND : chassis)/WP-10 board
Trigger : TP32/CP-54 board
Adj. point : ⊘ RV39/WP-10 board
Spec. : A=2.0±0.05V

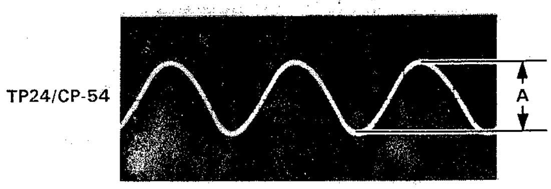


3-6-2. Pattern Modulation DC Level Adjustment

Equipment : Digital voltmeter
Test point : TP38 (GND : chassis)/CP-54 board
Adj. point : ⊘ RV13/CP-54 board
Spec. : +5.9±0.05V

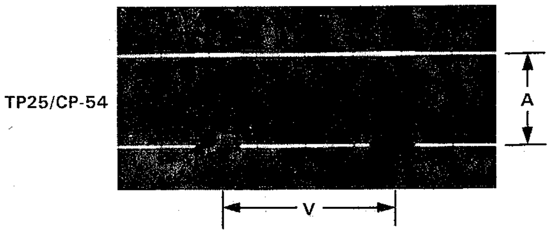
3-6-3. Pattern Modulation Output Adjustment

Equipment : Oscilloscope
Preparation : Set the PATTERN MODULATION switch to "ON" and turn the AMPL control fully clockwise ↻.
Test point : TP24 (GND : chassis)/CP-54 board
Adj. point : ⊘ RV14/CP-54 board
Spec. : A=0.5±0.05V



3-6-4. Mosaic Output Level Adjustment

Equipment : Oscilloscope
Preparation : Turn the SERVO/TRIM dial so that the upper third or fourth indicator lights up.
Set the WIPE SELECT key to ▦ .
Test point : TP25 (GND : chassis)/CP-54 board
Trigger : TP42/CP-54 board
Adj. point : ⊘ RV6/CP-54 board
Spec. : A=2.0±0.1V

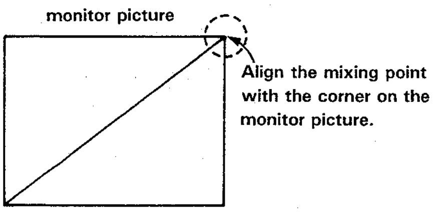


3-6-5. Fader Level Adjustment

Equipment : Oscilloscope

Preparation : 1. Set the WIPE SELECT key to ◩ .

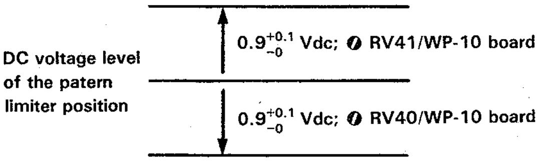
2. Pull the SERVO/TRIM dial toward you, set the unit to the TRIM WIPE mode and align the upper right mixing point on the monitor picture with the corner on the monitor picture.


monitor picture
Align the mixing point with the corner on the monitor picture.

When the REV indicator does not light up.

3. Press the wipe buttons ▲ and ▼ at the same time, set the pattern limiter to the wipe position, and then press the SERVO/TRIM dial.
Observe the DC voltage level at TP54 on the WP-10 board.

Adjust : 1. Press alternately the wipe buttons ▲ and ▼, and then adjust ⊘ RV40 and ⊘ RV41 on the WP-10 board so that a change in DC voltage at TP54 on the WP-10 board is $0.9^{+0.1}_{-0}$ Vdc at DC voltage level of the pattern limiter position.


DC voltage level of the patern limiter position
$0.9^{+0.1}_{-0}$ Vdc; ⊘ RV41/WP-10 board
$0.9^{+0.1}_{-0}$ Vdc; ⊘ RV40/WP-10 board

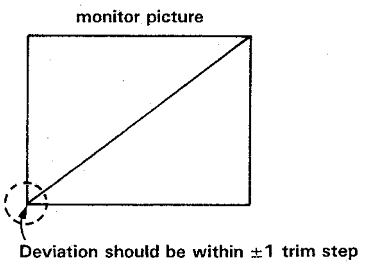
2. If the DC voltage level, at TP54 on the WP-10 board, of the pattern limiter position observed in Preparation-3 changes, repeat Preparation-2 and 3 again.
3. Repeat Adjust-1 and 2 several times.

3-6-6. Skew Wipe Adjustment

Note: Confirm that the 3-5-6. V SAW Waveform Adjustment and 3-6-5. Fader Level Adjustment are completed.

Adjust : 1. Press the wipe button ▲ or ▼ so that the wipe pattern is located in the pattern limiter position set in 3-6-5. Fader Level Adjustment. (Confirm that the REV indicator does not light up.)

2. Adjust ⊘ RV3 on the WP-9 board so that the lower left mixing point on the monitor picture aligns with the corner on the monitor picture.


monitor picture
Deviation should be within ±1 trim step

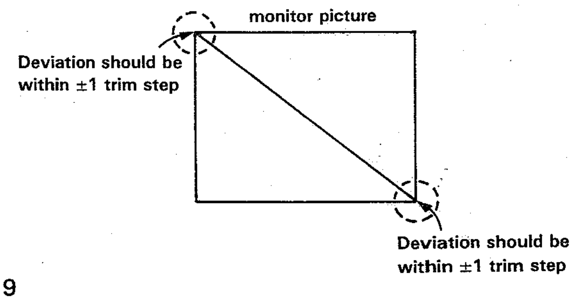
3-6-7. Wipe No. 128 Adjustment

Note: Comfirm that the 3-4-6. H SAW Waveform Adjustment and 3-6-5. Fader Level Adjustment are completed.

Preparation : 1. Set the SHIFT key to "ON".

2. Input the pattern code No. 128.
3. Press the WIPE SELECT key ▤ (M1).
4. Press the wipe button ▲ or ▼ so that the wipe pattern is located in the pattern limiter position set in 3-6-5. Fader Level Adjustment. (Confirm that the REV indicator does not light up.)

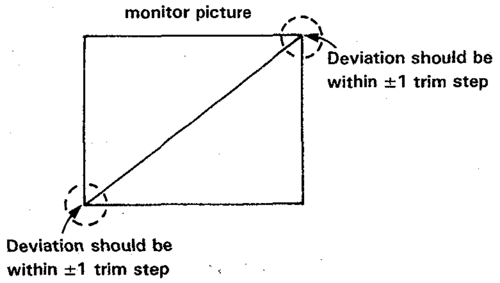
Adjust :
- Adjust ⊘ RV31 on the WP-10 board so that the upper left mixing point on the monitor picture aligns with the corner on the monitor picture.
- Adjust ⊘ RV3 on the WP-10 board so that the lower right mixing point on the monitor picture aligns with the corner on the monitor picture.


monitor picture
Deviation should be within ±1 trim step
Deviation should be within ±1 trim step

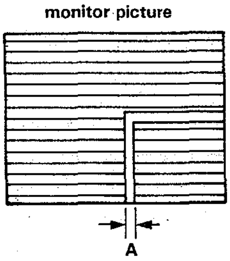
3-6-8. Wipe No. 144, 112 Adjustment

Note: Confirm that the 3-5-6. V SAW Waveform Adjustment and 3-6-5. Fader Level Adjustment are completed.

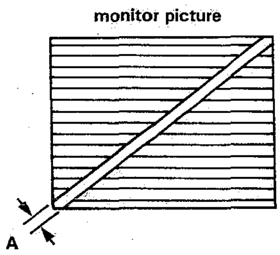
: 1. Input the pattern code. No. 144. Press the WIPE SELECT key ⊟ (M2).
2. Press the wipe button ▲ or ▼ so that the wipe pattern is located in the pattern limiter position set in 3-6-5. Fader Level Adjustment. (Confirm that the REV indicator does not light up.)
3. Adjust ⊘ RV29 on the WP-9 board so that the upper right mixing point on the monitor picture aligns with the corner on the monitor picture.
4. Adjust ⊘ RV2 on the WP-9 board so that the lower left mixing point on the monitor picture aligns with the corner on the monitor picture.


monitor picture
Deviation should be within ±1 trim step
Deviation should be within ±1 trim step

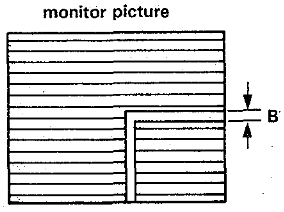
5. Input the pattern code No. 112. Press the WIPE SELECT key ◧ (M3). Set the PAIRING switch to "ON".
6. Adjust ⊘ RV35 on the WP-10 board so that the portion "A" is 0±1 trim step.


monitor picture
A

7. Press the WIPE SELECT key ⊟ (M2). Adjust ⊘ RV25 on the WP-9 board so that the portion "A" is 0±1 trim step.


monitor picture
A

8. Press the WIPE SELECT key ◧ (M3). Adjust ⊘ RV34 on the WP-10 board so that the portion "B" is 0±1 trim step.

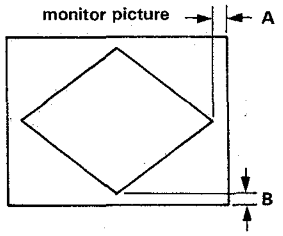

monitor picture
B

3-6-9. Diamond Edge Adjustment

Note: Confirm that the 3-4-8. H Triangle Waveform Adjustment and 3-5-7. V Triangle Waveform Adjustment, 3-6-5. Fader Level Adjustment are completed.

Preparation :
1. Set the SHIFT key to "OFF".
2. Set the WIPE SELECT key to ▶ .
3. Press the wipe button ▲ or ▼ so that the wipe pattern is located in the pattern limiter position set in 3-6-5. Fader Level Adjustment. (Confirm that the REV indicator does not light up.)

Adjust :
1. Adj. point : ⊘ RV10/WP-9 board
   Spec. : A=0±1 trim step
2. Adj. point : ⊘ RV16/WP-10 board
   Spec. : B=0±1 trim step


monitor picture
A
B

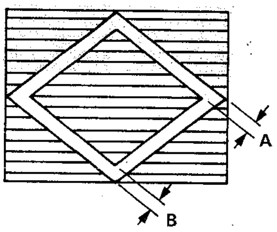
3-6-10. Diamond Pairing Adjustment

Note: Confirm that the 3-4-8. H Triangle Waveform Adjustment, 3-5-7. V Triangle Waveform Adjustment and 3-6-5. Fader Level Adjustment are completed.

Preparation : Set the PAIRING switch to "ON".
Press the wipe button ▲ or ▼ so that the wipe pattern is located in the pattern limiter position set in 3-6-5. Fader Level Adjustment. (Confirm that the REV indicator does not light up.).

Adjust : 1. Adj. point : ⊘ RV11/WP-9 board
Spec. : A = 0±1 trim step
2. Adj. point : ⊘ RV17/WP-10 board
Spec. : B = 0±1 trim step

monitor picture



3. Set the PAIRING switch to "OFF".

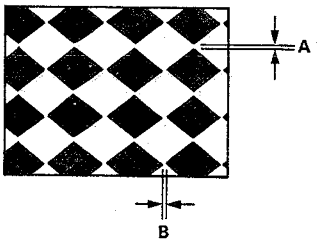
3-6-11. Multi-Diamond Pattern Adjustment

Note: Confirm that the 3-4-11. H Harmonic Waveform Adjustment, 3-5-10. V Harmonic Waveform Adjustment and 3-6-5. Fader Level Adjustment are completed.

Preparation : Set the WIPE SELECT key to ⊞ .
Press the wipe button ▲ or ▼ so that the wipe pattern is located in the pattern limiter position set in 3-6-5. Fader Level Adjustment. (Confirm that the REV indicator does not light up.).

Adjust : 1. Adj. point : ⊘ RV18/WP-9 board
Spec. : A = 0±1 trim step
2. Adj. point : ⊘ RV25/WP-10 board
Spec. : B = 0±1 trim step

monitor picture



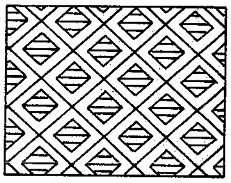
3-6-12. Multi-Diamond Pairing Adjustment

Note: Confirm that the 3-4-11. H Harmonic Waveform Adjustment, 3-5-10, V Harmonic Waveform Adjustment and 3-6-5. Fader Level Adjustment are completed.

Preparation : Set the PAIRING switch to "ON".
Press the wipe button ▲ or ▼ so that the wipe pattern is located in the pattern limiter position set in 3-6-5.
Fader Level Adjustment. (Confirm that the REV indicator does not light up.).

Adjust : 1. Adj. point : ⊘ RV17/WP-9 board
Spec. : A = 0±2 trim step
2. Adj. point : ⊘ RV24/WP-10 board
Spec. : B = 0±2 trim step

monitor picture



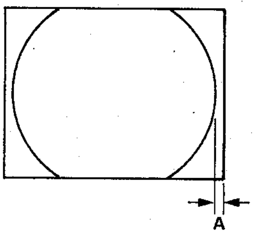
3-6-13. Circular Wipe Adjustment

Note: Confirm that the 3-4-7. H Parabola Waveform Adjustment, 3-5-12. V Parabola Waveform Adjustment and 3-6-5. Fader Level Adjustment are completed.

Preparation : Set the WIPE SELECT key to ■ (4).
Press the wipe button ▲ or ▼ so that the wipe pattern is located in the pattern limiter position set in 3-6-5. Fader Level Adjustment. (Confirm that the REV indicator does not light up.)

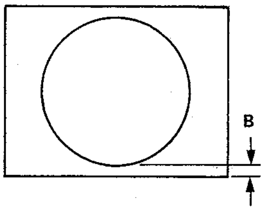
Adjust : 1. Adjust ⊘ RV22 on the WP-9 board so that the portion "A" is 0±1 trim step.

monitor picture



2. Pull the SERVO/TRIM dial toward you, set the unit to the TRIM WIPE mode, and advance the wipe pattern by 30 trim steps with the wipe button ▼. Adjust ⊘ RV13 on the WP-10 board so that the partion "B" is 0±1 trim step.

monitor picture



3-6-14. Circular Wipe Pairing Adjustment

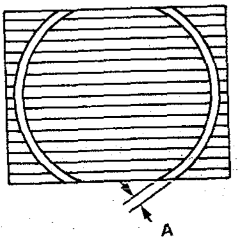
Note: Confirm that the 3-4-7. H Parabola Waveform Adjustment, 3-5-12. V Parabola Waveform Adjustment and 3-6-5. Fader Level Adjustment are completed.

Preparation : Press the SERVO/TRIM button. Press the wipe button ▲ so that the wipe pattern is located in the pattern limiter position set in 3-6-5. Fader Level Adjustment. (Confirm that the REV indicator does not light up.) Set the PAIRING switch to "ON".

Adj. point : ⊘ RV21/WP-9 board
⊘ RV12/WP-10 board

Spec. : A = 0±1 trim step

monitor picture



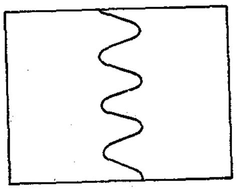
3-6-15. Pattern Modulation Frequency Adjustment

Note: Confirm that the 3-6-5. Fader Level Adjustment are completed.

Preparation : Set the WIPE SELECT key to ◧ .
Set the PATTERN MODULATION switch to "ON".
Press the wipe button ▲ or ▼ so that the wipe pattern is located in the pattern limiter position set in 3-6-5. Fader Level Adjustment. (Confirm that the REV indicator does not light up.).

Adjust : Adjust ⊘ RV5 on the CP-54 board so that the number of waveform peaks on the monitor picture is 3.5±0.3.

monitor picture

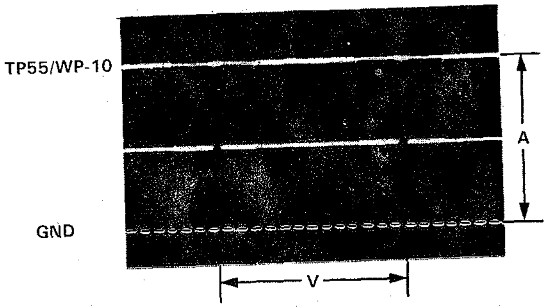


3-6-16. Horizontal and Vertical Clamp Level Adjustment

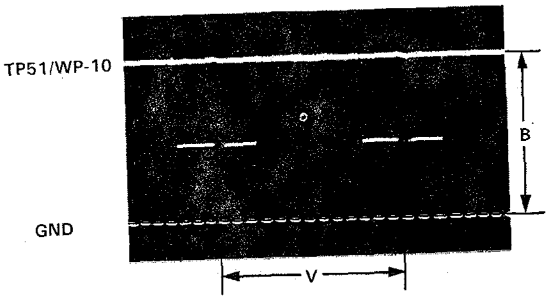
Preparation : Set the WIPE SELECT key to ▣ . Turn the SERVO/TRIM dial so that the upper third or fourth indicator lights up.

Trigger : TP42/CP-54 board

Adjust : 1. Test point : TP55 (GND : chassis)/ WP-10 board
Adjust : Observe the voltage level at portion "A".

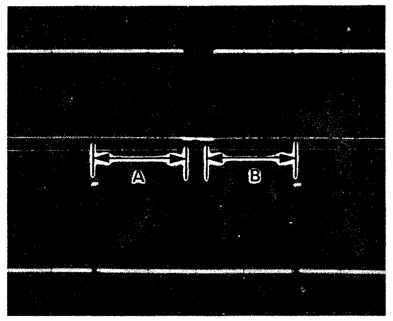


2. Test point : TP51 (GND : chassis)/ WP-10 board
Adjust : Adjust ⊘ RV43 on the WP-10 board so tht the voltage level at portion "B" is equal to that at portion "A" in step 1.



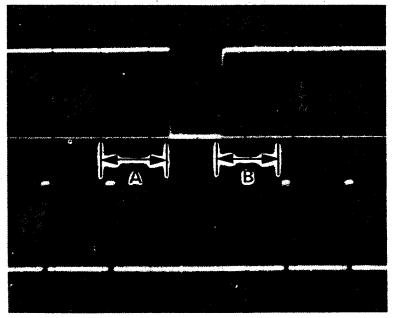
3-6-17. Vertical Mosaic Pulse Adjustment

Equipment : Oscilloscope
Preparation : 1. Remove the two fixing screws from the control panel of SEG-2000/2000A, open the control panel and connect the CH1 probe of an oscilloscope to the BLKG connector on the SG board of SEG-2000/2000A.
2. Set the WIPE SELECT key to ⊟ .
Test point : BLKG connector/SG board (SEG-2000/2000A)
TP40/CP-54 board
Trigger : TP42/CP-54 board
Adj. point : ⊘ RV1/CP-54 board
⊘ RV2/CP-54 board
Spec. : A = B = 3.9±0.1ms [For NTSC, PAL-M]
A = B = 4.4±0.1ms [For PAL]



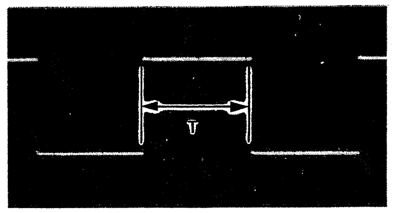
3-6-18. Horizontal Mosaic Pulse Adjustment

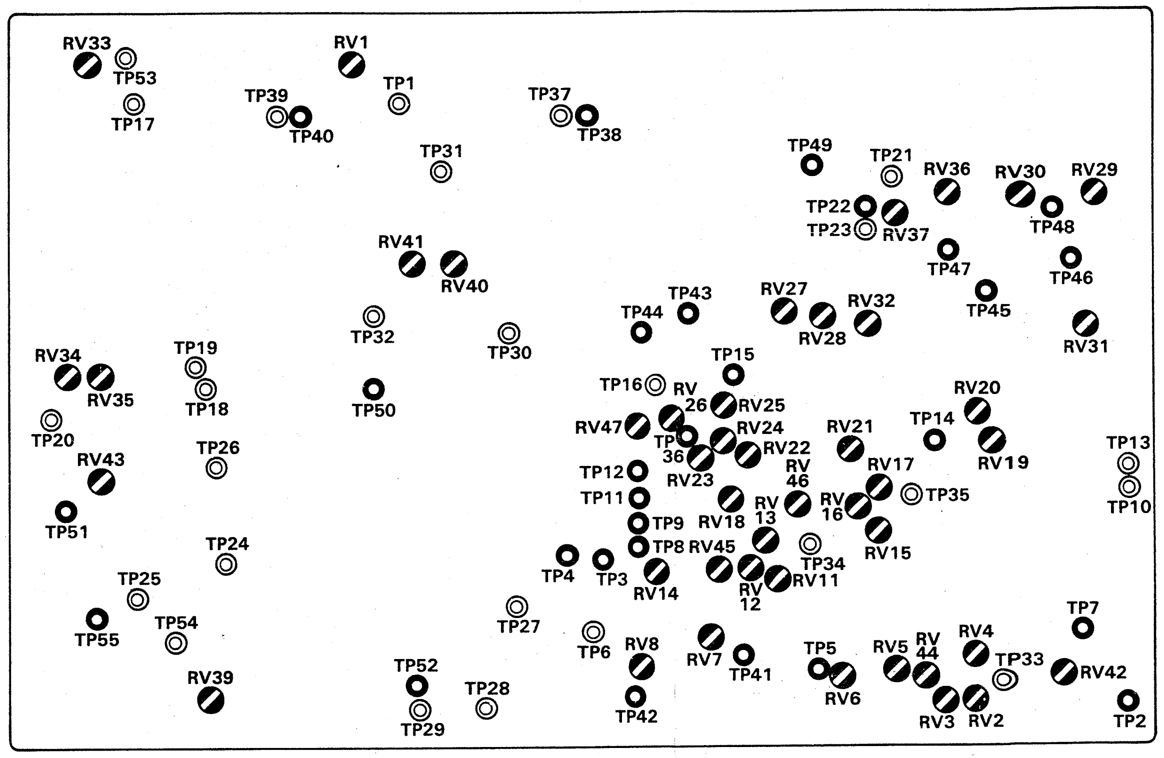
Equipment : Oscilloscope
Preparation : 1. Remove the two fixing screws from the control panel of SEG-2000/2000A, open the control panel and connect the CH1 probe of an oscilloscope to the BLKG connector on the SG board of SEG-2000/2000A.
2. Set the WIPE SELECT key to ⊟ .
Test point : BLKG connector/SG board (SEG-2000/2000A)
TP41/CP-54 board
Trigger : TP32/CP-54 board
Adj. point : ⊘ RV3/CP-54 board
⊘ RV4/CP-54 board
Spec. : A = B = 13.0±0.5μs



3-6-19. Fader Clock Adjustment

Equipment : Oscilloscope
Preparation : 1. Press the wipe button ⊡ so that the upper first or sixth indicator lights up. Turn the WIPE SPEED control fully counterclockwise ↺.
Test point : TP28 (GND : chassis)/CP-54 board.
Trigger : INT TRIG
Adj. point : ⊘ RV7/CP-54 board
Spec. : T = 18.0±0.4msec

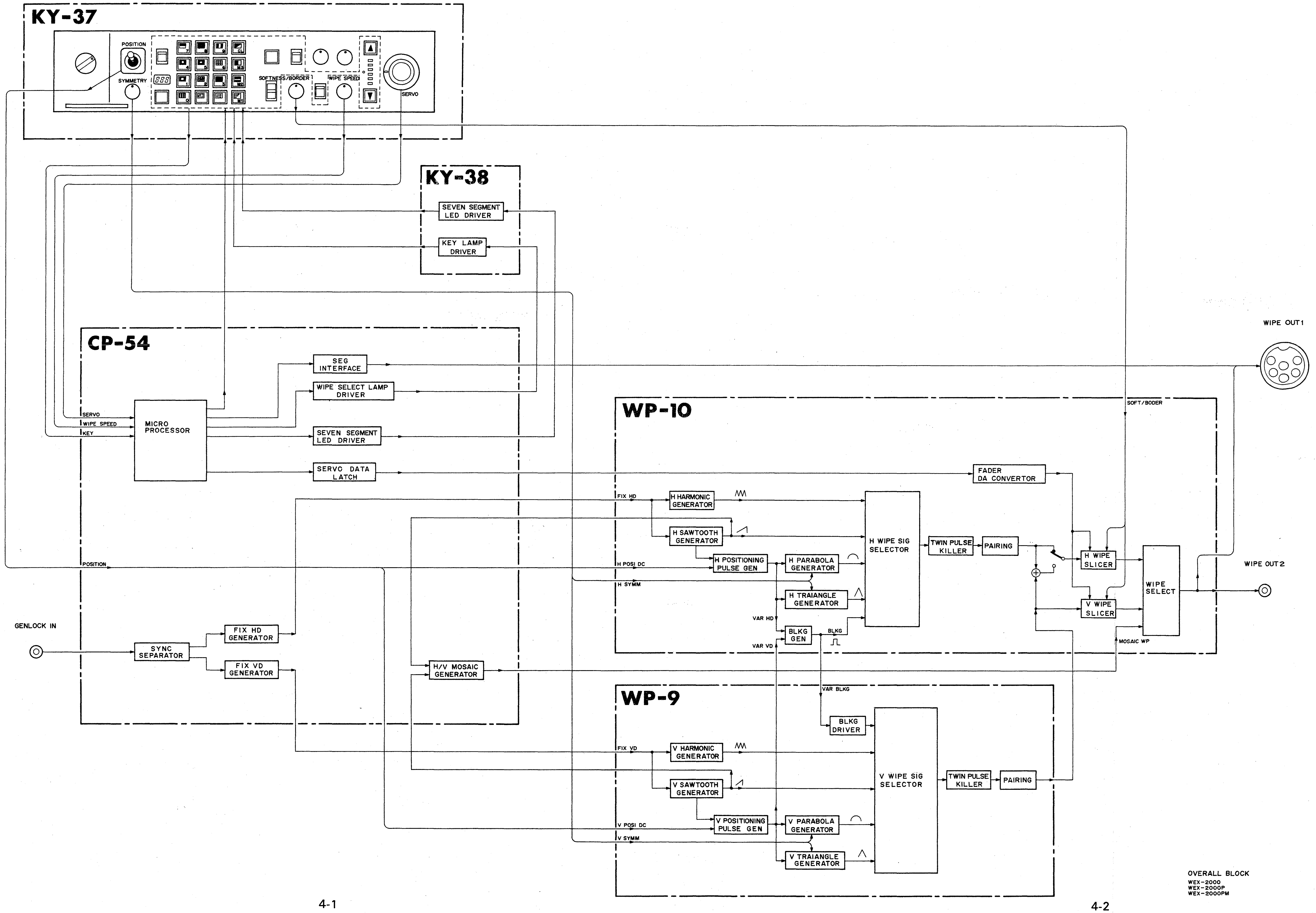



RV33
TP53
TP17
RV1
TP1
TP39
TP40
TP37
TP38
TP31
TP49
TP21
RV36
RV30
RV29
TP22
TP23
RV37
TP48
RV41
RV40
TP47
TP46
TP43
RV27
RV32
TP44
TP45
TP32
TP30
RV28
RV31
RV34
TP19
TP15
RV35
TP18
TP50
TP16
RV26
RV25
RV20
TP20
TP26
RV47
TP36
RV24
RV21
TP14
RV43
RV22
TP13
TP12
RV23
RV46
RV17
RV19
TP11
RV13
RV16
TP35
TP10
TP51
TP9
RV18
TP24
TP8
RV45
TP34
RV15
TP4
TP3
RV14
RV12
RV11
TP25
TP7
TP27
TP55
TP54
TP6
RV8
RV7
TP41
TP5
RV5
RV44
RV4
TP33
RV39
TP52
TP28
RV42
RV6
TP29
TP42
RV3
RV2
TP2

WP-10 board (component side)

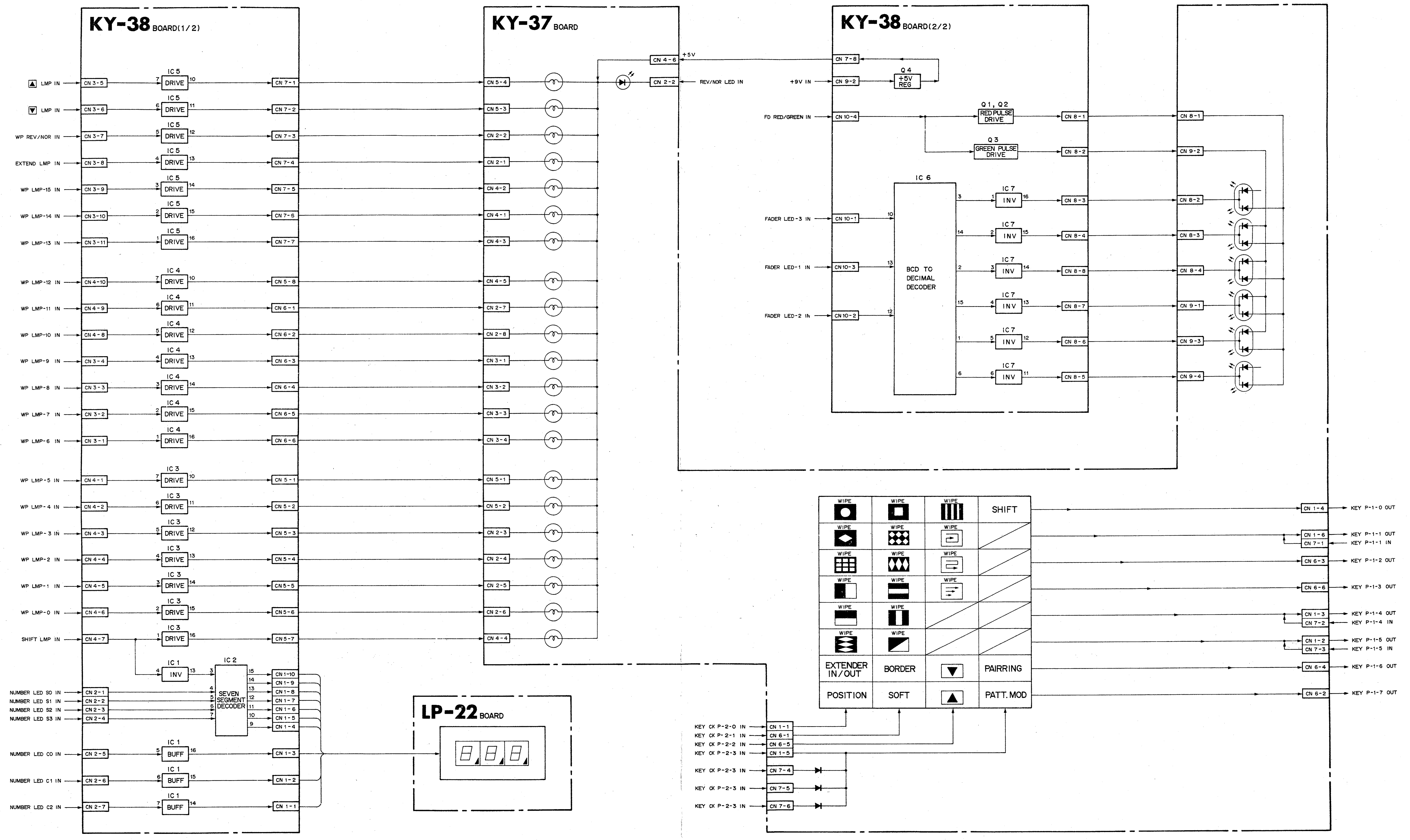
SECTION 4
DIAGRAM

4-1. BLOCK DIAGRAM
OVERALL BLOCK DIAGRAM


KY-37
POSITION
SYMMETRY
SOFTNESS/BORDER
WIPE SPEED
SERVO
KY-38
SEVEN SEGMENT LED DRIVER
KEY LAMP DRIVER
CP-54
SEG INTERFACE
WIPE SELECT LAMP DRIVER
SERVO
WIPE SPEED
KEY
MICRO PROCESSOR
SEVEN SEGMENT LED DRIVER
SERVO DATA LATCH
POSITION
GENLOCK IN
SYNC SEPARATOR
FIX HD GENERATOR
FIX VD GENERATOR
H/V MOSAIC GENERATOR
WIPE OUT1
WP-10
SOFT/BODER
FADER DA CONVERTOR
FIX HD
H HARMONIC GENERATOR
H SAWTOOTH GENERATOR
H POSI DC
H POSITIONING PULSE GEN
H PARABOLA GENERATOR
H SYMM
H TRAIANGLE GENERATOR
VAR HD
VAR VD
BLKG GEN
BLKG
H WIPE SIG SELECTOR
TWIN PULSE KILLER
PAIRING
H WIPE SLICER
V WIPE SLICER
WIPE SELECT
MOSAIC WP
WIPE OUT2
WP-9
VAR BLKG
BLKG DRIVER
FIX VD
V HARMONIC GENERATOR
V SAWTOOTH GENERATOR
V POSI DC
V POSITIONING PULSE GEN
V PARABOLA GENERATOR
V SYMM
V TRAIANGLE GENERATOR
V WIPE SIG SELECTOR
TWIN PULSE KILLER
PAIRING

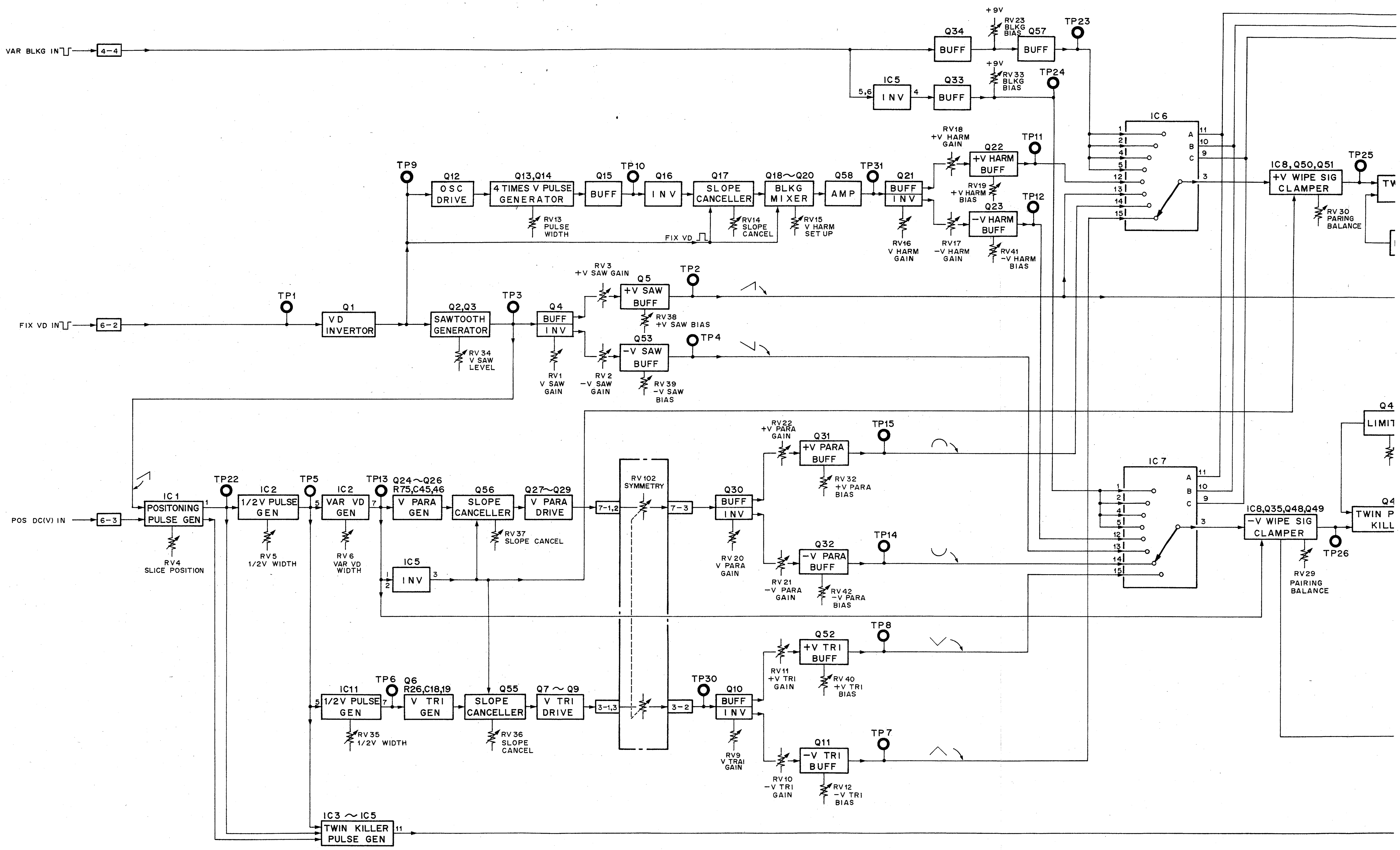
OVERALL BLOCK
WEX-2000
WEX-2000P
WEX-2000PM

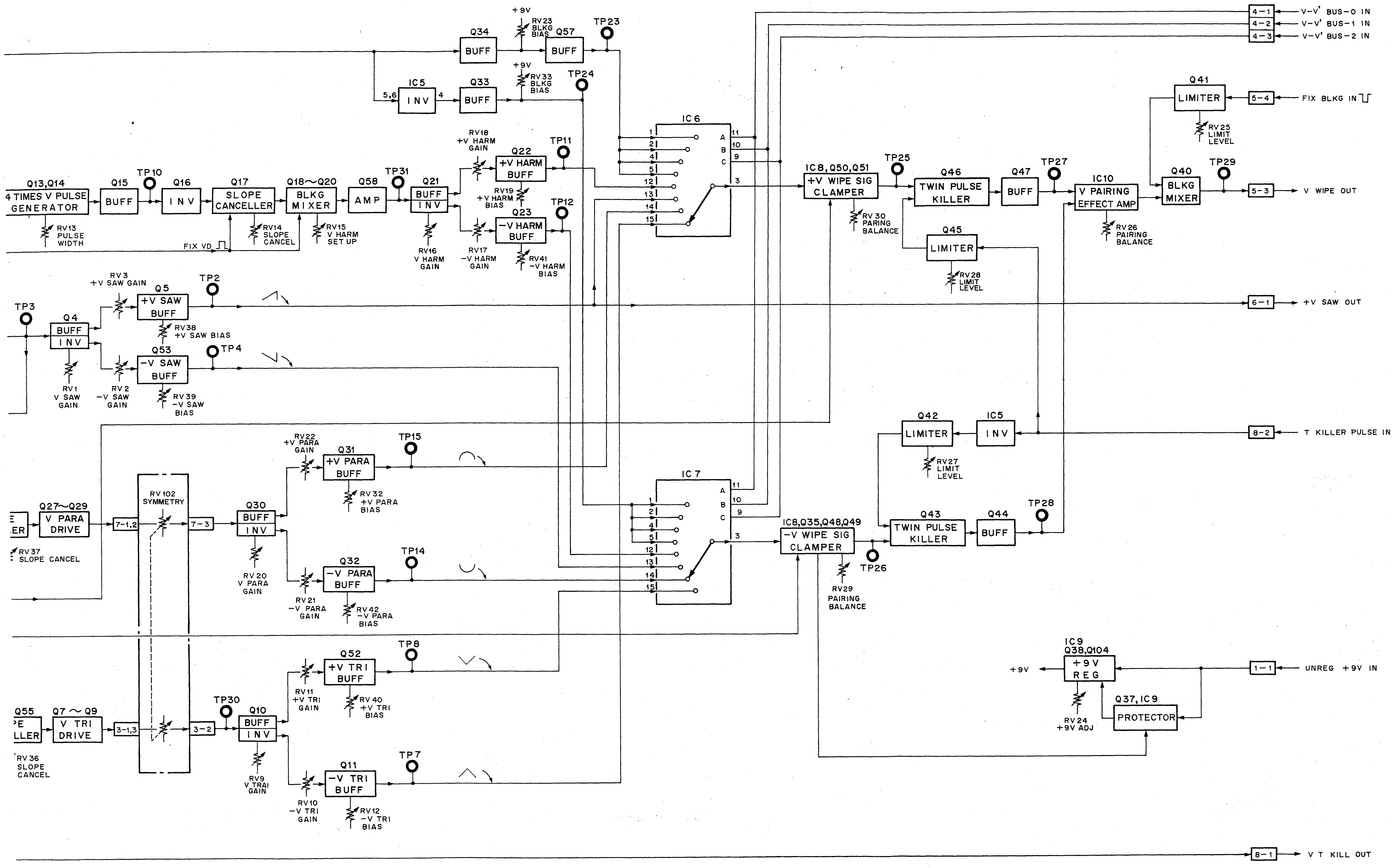
KY-37/38 BOARD


KY-38 BOARD(1/2)
▲ LMP IN
▼ LMP IN
WP REV/NOR IN
EXTEND LMP IN
WP LMP-15 IN
WP LMP-14 IN
WP LMP-13 IN
WP LMP-12 IN
WP LMP-11 IN
WP LMP-10 IN
WP LMP-9 IN
WP LMP-8 IN
WP LMP-7 IN
WP LMP-6 IN
WP LMP-5 IN
WP LMP-4 IN
WP LMP-3 IN
WP LMP-2 IN
WP LMP-1 IN
WP LMP-0 IN
SHIFT LMP IN
NUMBER LED S0 IN
NUMBER LED S1 IN
NUMBER LED S2 IN
NUMBER LED S3 IN
NUMBER LED C0 IN
NUMBER LED C1 IN
NUMBER LED C2 IN
CN 3-5
CN 3-6
CN 3-7
CN 3-8
CN 3-9
CN 3-10
CN 3-11
CN 4-10
CN 4-9
CN 4-8
CN 3-4
CN 3-3
CN 3-2
CN 3-1
CN 4-1
CN 4-2
CN 4-3
CN 4-4
CN 4-5
CN 4-6
CN 4-7
CN 2-1
CN 2-2
CN 2-3
CN 2-4
CN 2-5
CN 2-6
CN 2-7
IC 5
IC 4
IC 3
DRIVE
IC 1
INV
IC 2
SEVEN SEGMENT DECODER
BUFF
CN 7-1
CN 7-2
CN 7-3
CN 7-4
CN 7-5
CN 7-6
CN 7-7
CN 5-8
CN 6-1
CN 6-2
CN 6-3
CN 6-4
CN 6-5
CN 6-6
CN 5-1
CN 5-2
CN 5-3
CN 5-4
CN 5-5
CN 5-6
CN 5-7
CN 1-10
CN 1-9
CN 1-8
CN 1-7
CN 1-6
CN 1-5
CN 1-4
CN 1-3
CN 1-2
CN 1-1
KY-37 BOARD
CN 5-4
CN 5-3
CN 2-2
CN 2-1
CN 4-2
CN 4-1
CN 4-3
CN 4-5
CN 2-7
CN 2-8
CN 3-1
CN 3-2
CN 3-3
CN 3-4
CN 5-1
CN 5-2
CN 2-3
CN 2-4
CN 2-5
CN 2-6
CN 4-4
CN 4-6
CN 2-2
+5V
REV/NOR LED IN
LP-22 BOARD
KY-38 BOARD(2/2)
CN 7-8
+9V IN
CN 9-2
Q 4
+5V REG
FD RED/GREEN IN
CN 10-4
Q 1, Q 2
RED PULSE DRIVE
Q 3
GREEN PULSE DRIVE
CN 8-1
CN 8-2
IC 6
BCD TO DECIMAL DECODER
FADER LED-3 IN
CN 10-1
FADER LED-1 IN
CN 10-3
FADER LED-2 IN
CN 10-2
IC 7
INV
CN 8-3
CN 8-4
CN 8-8
CN 8-7
CN 8-6
CN 8-5
CN 8-1
CN 9-2
CN 8-2
CN 8-3
CN 8-4
CN 9-1
CN 9-3
CN 9-4
WIPE
SHIFT
EXTENDER IN/OUT
BORDER
▼
PAIRRING
POSITION
SOFT
▲
PATT. MOD
KEY CK P-2-0 IN
KEY CK P-2-1 IN
KEY CK P-2-2 IN
KEY CK P-2-3 IN
KEY CK P-2-3 IN
KEY CK P-2-3 IN
KEY CK P-2-3 IN
CN 1-1
CN 6-1
CN 6-5
CN 1-5
CN 7-4
CN 7-5
CN 7-6
CN 1-4
CN 1-6
CN 7-1
CN 6-3
CN 6-6
CN 1-3
CN 7-2
CN 1-2
CN 7-3
CN 6-4
CN 6-2
KEY P-1-0 OUT
KEY P-1-1 OUT
KEY P-1-1 IN
KEY P-1-2 OUT
KEY P-1-3 OUT
KEY P-1-4 OUT
KEY P-1-4 IN
KEY P-1-5 OUT
KEY P-1-5 IN
KEY P-1-6 OUT
KEY P-1-7 OUT

KY BLOCK (NTSC, PAL, PM)
WEX-2000 (U/C, J)
WEX-2000P (AEP, UK)
WEX-2000PM (BRZ)

WP-9 BOARD

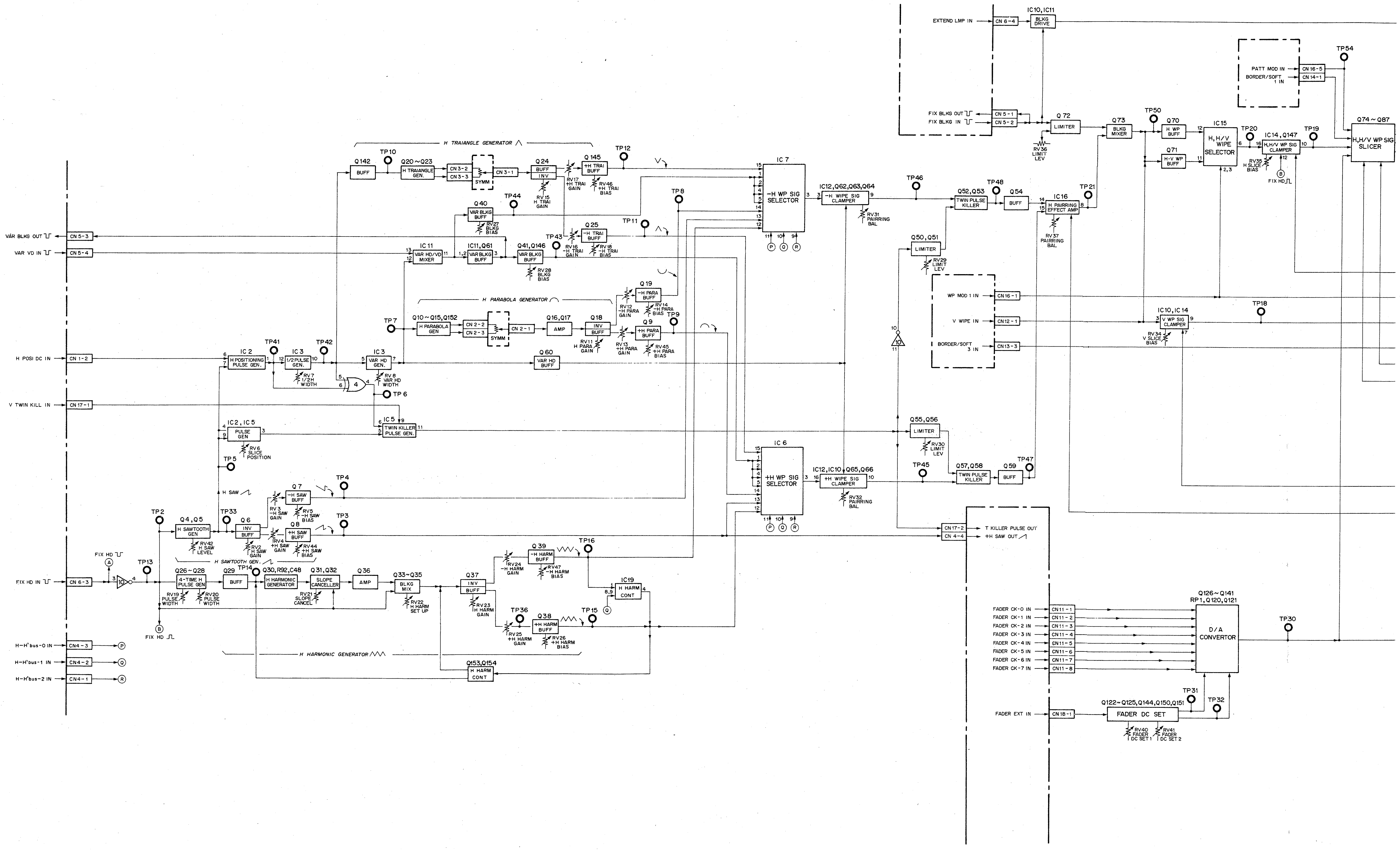

VAR BLKG IN
4-4
+9V
RV23 BLKG BIAS
Q34
BUFF
Q57
BUFF
TP23
IC5
INV
5,6
4
Q33
BUFF
+9V
RV33 BLKG BIAS
TP24
IC6
A
B
C
RV18 +V HARM GAIN
Q22
+V HARM BUFF
TP11
RV19 +V HARM BIAS
Q23
-V HARM BUFF
TP12
RV17 -V HARM GAIN
RV41 -V HARM BIAS
IC8,Q50,Q51
+V WIPE SIG CLAMPER
TP25
RV30 PARING BALANCE
TP9
Q12
OSC DRIVE
Q13,Q14
4 TIMES V PULSE GENERATOR
RV13 PULSE WIDTH
Q15
BUFF
TP10
Q16
INV
Q17
SLOPE CANCELLER
RV14 SLOPE CANCEL
Q18~Q20
BLKG MIXER
RV15 V HARM SET UP
FIX VD
Q58
AMP
TP31
Q21
BUFF INV
RV16 V HARM GAIN
RV3 +V SAW GAIN
Q5
+V SAW BUFF
TP2
RV38 +V SAW BIAS
TP1
FIX VD IN
6-2
Q1
VD INVERTOR
Q2,Q3
SAWTOOTH GENERATOR
RV34 V SAW LEVEL
TP3
Q4
BUFF INV
RV1 V SAW GAIN
RV2 -V SAW GAIN
Q53
-V SAW BUFF
TP4
RV39 -V SAW BIAS
Q4
LIMIT
RV22 +V PARA GAIN
Q31
+V PARA BUFF
TP15
RV32 +V PARA BIAS
IC7
A
B
C
IC1
POSITONING PULSE GEN
POS DC(V) IN
6-3
RV4 SLICE POSITION
TP22
IC2
1/2V PULSE GEN
RV5 1/2V WIDTH
TP5
IC2
VAR VD GEN
RV6 VAR VD WIDTH
TP13
Q24~Q26 R75,C45,46
V PARA GEN
Q56
SLOPE CANCELLER
RV37 SLOPE CANCEL
Q27~Q29
V PARA DRIVE
7-1,2
RV102 SYMMETRY
7-3
Q30
BUFF INV
RV20 V PARA GAIN
Q32
-V PARA BUFF
TP14
RV21 -V PARA GAIN
RV42 -V PARA BIAS
IC8,Q35,Q48,Q49
-V WIPE SIG CLAMPER
TP26
RV29 PAIRING BALANCE
Q4
TWIN P KILL
IC5
INV
Q52
+V TRI BUFF
TP8
RV11 +V TRI GAIN
RV40 +V TRI BIAS
IC11
1/2V PULSE GEN
RV35 1/2V WIDTH
TP6
Q6 R26,C18,19
V TRI GEN
Q55
SLOPE CANCELLER
RV36 SLOPE CANCEL
Q7 ~ Q9
V TRI DRIVE
3-1,3
3-2
TP30
Q10
BUFF INV
RV9 V TRAI GAIN
Q11
-V TRI BUFF
TP7
RV10 -V TRI GAIN
RV12 -V TRI BIAS
IC3 ~ IC5
TWIN KILLER PULSE GEN

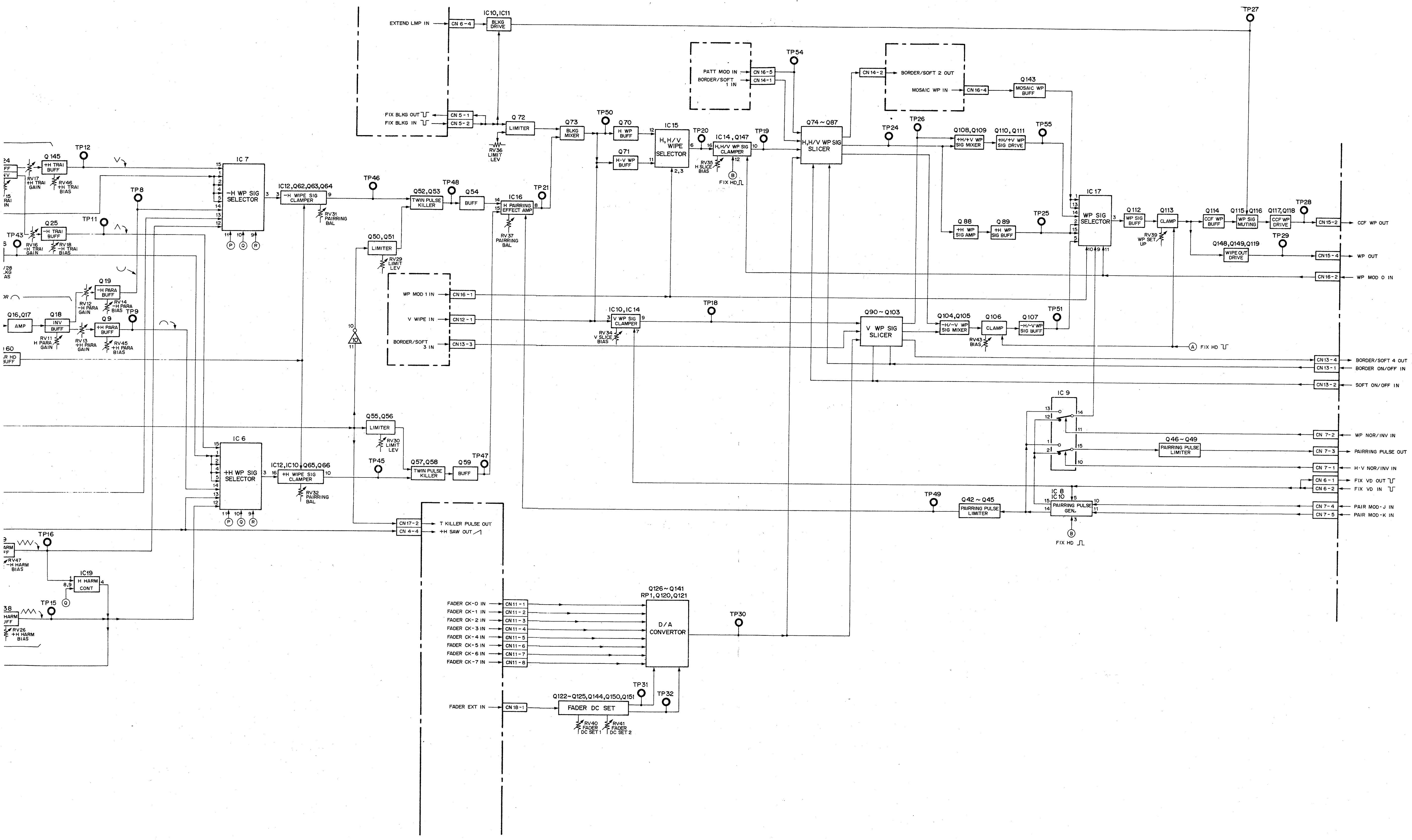


Q34
BUFF
+9V
RV23
BLKG
BIAS
Q57
BUFF
TP23
IC5
5,6
INV
4
Q33
BUFF
+9V
RV33
BLKG
BIAS
TP24
4-1
V-V' BUS-0 IN
4-2
V-V' BUS-1 IN
4-3
V-V' BUS-2 IN
Q41
LIMITER
5-4
FIX BLKG IN
RV25
LIMIT
LEVEL
IC6
A
B
C
11
10
9
3
1
2
4
5
12
13
14
15
RV18
+V HARM
GAIN
Q22
+V HARM
BUFF
TP11
RV19
+V HARM
BIAS
TP12
Q23
−V HARM
BUFF
RV16
V HARM
GAIN
RV17
−V HARM
GAIN
RV41
−V HARM
BIAS
Q13,Q14
4 TIMES V PULSE
GENERATOR
RV13
PULSE
WIDTH
Q15
BUFF
TP10
Q16
INV
Q17
SLOPE
CANCELLER
RV14
SLOPE
CANCEL
Q18~Q20
BLKG
MIXER
RV15
V HARM
SET UP
FIX VD
Q58
AMP
TP31
Q21
BUFF
INV
IC8,Q50,Q51
+V WIPE SIG
CLAMPER
RV30
PAIRING
BALANCE
TP25
Q46
TWIN PULSE
KILLER
Q47
BUFF
TP27
IC10
V PAIRING
EFFECT AMP
RV26
PAIRING
BALANCE
Q40
BLKG
MIXER
TP29
5-3
V WIPE OUT
Q45
LIMITER
RV28
LIMIT
LEVEL
RV3
+V SAW GAIN
Q5
+V SAW
BUFF
TP2
TP3
Q4
BUFF
INV
RV38
+V SAW BIAS
6-1
+V SAW OUT
Q53
−V SAW
BUFF
TP4
RV1
V SAW
GAIN
RV2
−V SAW
GAIN
RV39
−V SAW
BIAS
Q42
LIMITER
IC5
INV
8-2
T KILLER PULSE IN
RV27
LIMIT
LEVEL
RV22
+V PARA
GAIN
Q31
+V PARA
BUFF
TP15
RV32
+V PARA
BIAS
IC7
A
B
C
11
10
9
3
1
2
4
5
12
13
14
15
Q27~Q29
V PARA
DRIVE
RV37
SLOPE CANCEL
7-1,2
RV102
SYMMETRY
7-3
Q30
BUFF
INV
RV20
V PARA
GAIN
Q32
−V PARA
BUFF
TP14
RV21
−V PARA
GAIN
RV42
−V PARA
BIAS
IC8,Q35,Q48,Q49
−V WIPE SIG
CLAMPER
TP26
RV29
PAIRING
BALANCE
Q43
TWIN PULSE
KILLER
Q44
BUFF
TP28
RV11
+V TRI
GAIN
Q52
+V TRI
BUFF
TP8
RV40
+V TRI
BIAS
IC9
Q38,Q104
+9V
REG
+9V
1-1
UNREG +9V IN
RV24
+9V ADJ
Q37,IC9
PROTECTOR
Q55
Q7 ~ Q9
V TRI
DRIVE
3-1,3
3-2
TP30
Q10
BUFF
INV
RV9
V TRAI
GAIN
RV36
SLOPE
CANCEL
Q11
−V TRI
BUFF
TP7
RV10
−V TRI
GAIN
RV12
−V TRI
BIAS
8-1
V T KILL OUT

WP-9 BLOCK
WEX-2000
WEX-2000P
WEX-2000PM

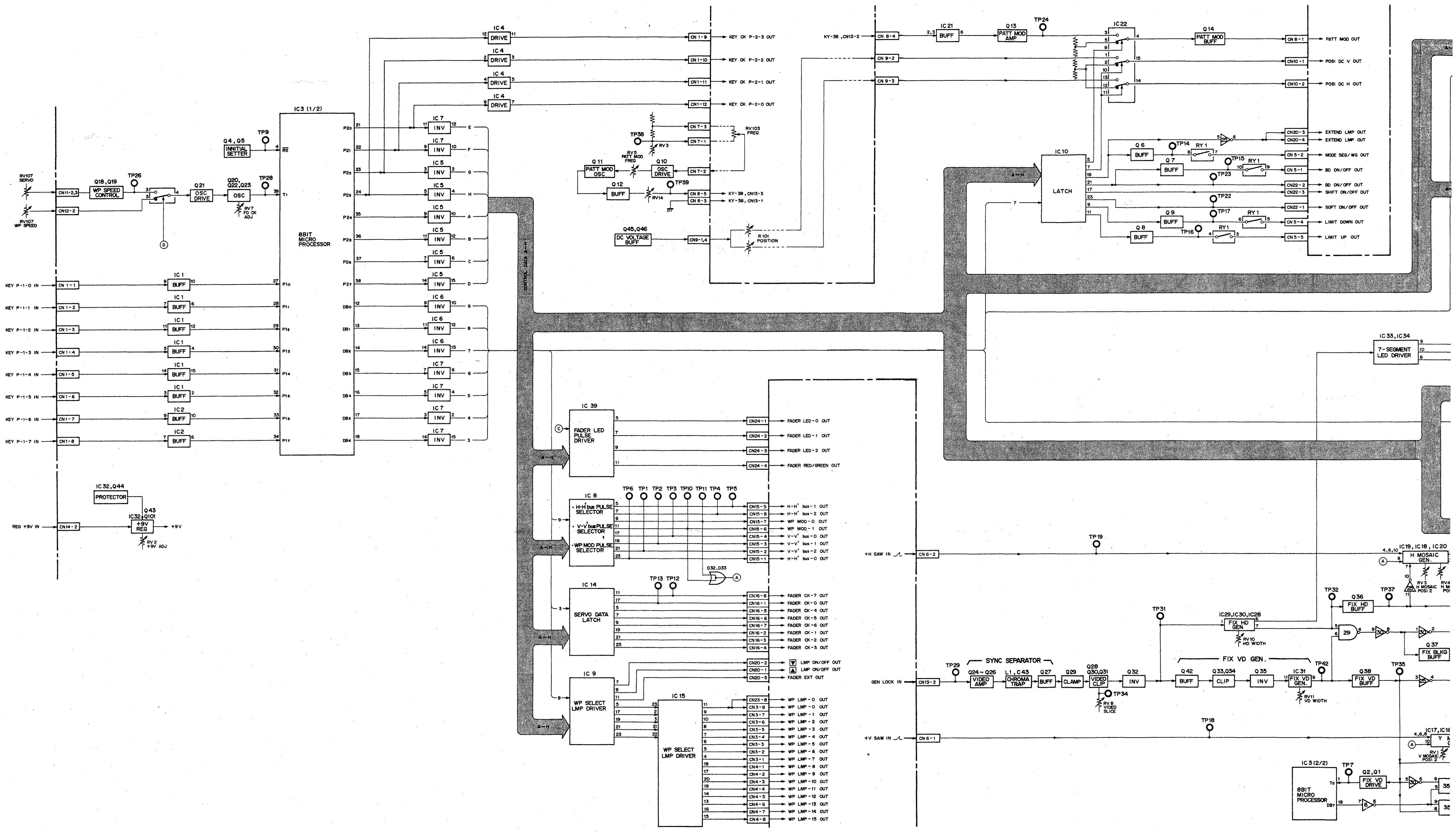
WP-10 BOARD

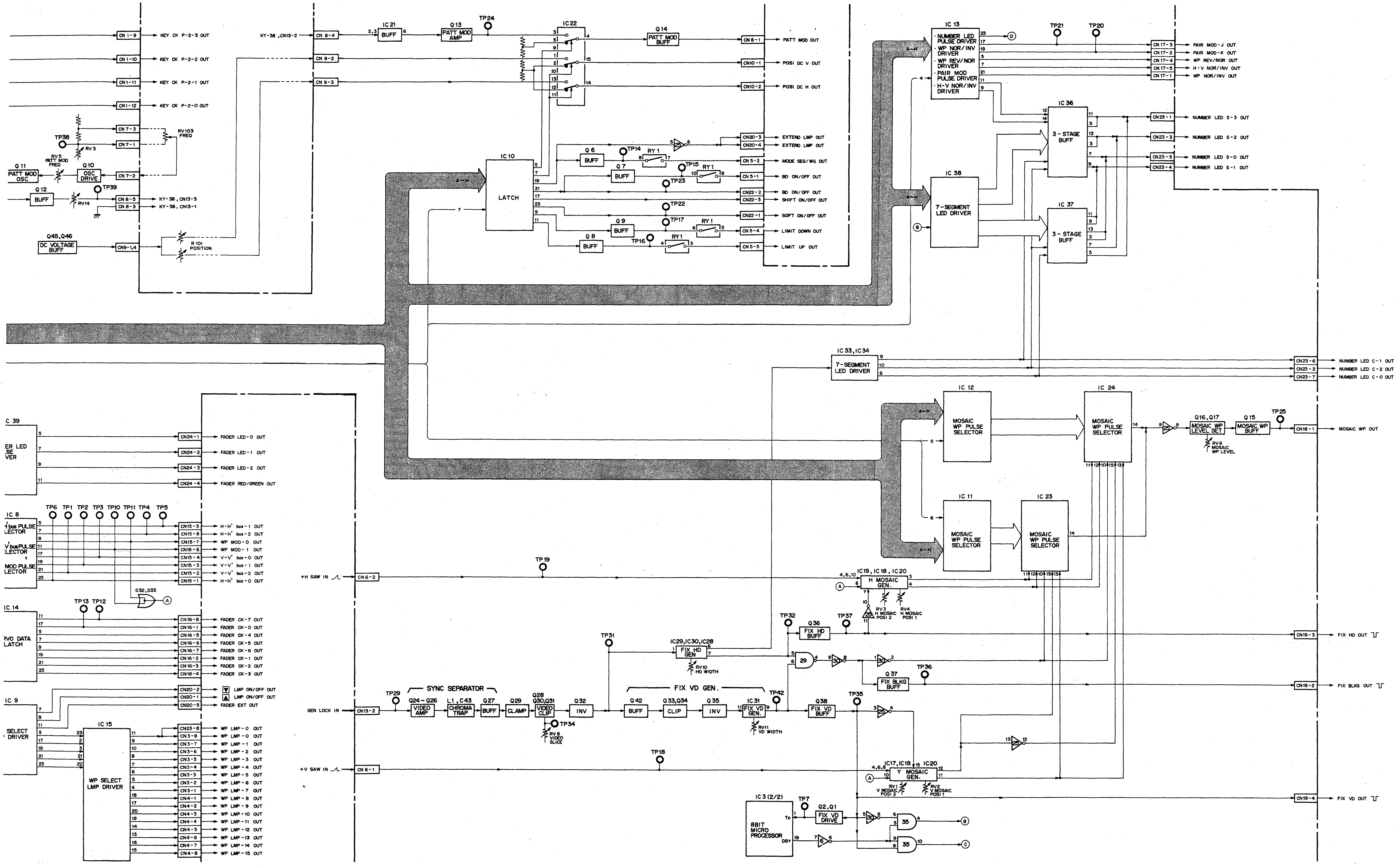

VAR BLKG OUT
VAR VD IN
H POSI DC IN
V TWIN KILL IN
FIX HD IN
H-H'bus-0 IN
H-H'bus-1 IN
H-H'bus-2 IN
CN 5-3
CN 5-4
CN 1-2
CN 17-1
CN 6-3
CN 4-3
CN 4-2
CN 4-1
H TRAIANGLE GENERATOR
Q142 BUFF
TP10
Q20~Q23 H TRAIANGLE GEN.
CN 3-2
CN 3-3
SYMM
CN 3-1
Q24 BUFF INV
RV15 H TRAI GAIN
Q145 +H TRAI BUFF
RV17 +H TRAI GAIN
RV46 +H TRAI BIAS
TP12
Q25 -H TRAI BUFF
RV16 -H TRAI GAIN
RV18 -H TRAI BIAS
TP43
TP11
TP44
Q40 VAR BLKG BUFF
RV27 BLKG BIAS
IC11 VAR HD/VD MIXER
IC11,Q61 VAR BLKG BUFF
Q41,Q146 VAR BLKG BUFF
RV28 BLKG BIAS
H PARABOLA GENERATOR
TP7
Q10~Q15,Q152 H PARABOLA GEN
CN 2-2
CN 2-3
CN 2-1
Q16,Q17 AMP
Q18 INV BUFF
RV11 H PARA GAIN
Q19 -H PARA BUFF
RV12 -H PARA GAIN
RV14 -H PARA BIAS
Q9 +H PARA BUFF
RV13 +H PARA GAIN
RV45 +H PARA BIAS
TP9
TP8
IC2 H POSITIONING PULSE GEN.
TP41
IC3 1/2 PULSE GEN.
RV7 1/2H WIDTH
TP42
IC3 VAR HD GEN.
RV8 VAR HD WIDTH
Q60 VAR HD BUFF
TP6
IC2,IC5 PULSE GEN
RV6 SLICE POSITION
TP5
IC5 TWIN KILLER PULSE GEN.
H SAW
Q7 -H SAW BUFF
RV3 -H SAW GAIN
RV5 -H SAW BIAS
TP4
TP33
Q6 INV BUFF
RV2 H SAW GAIN
Q8 +H SAW BUFF
RV4 +H SAW GAIN
RV44 +H SAW BIAS
TP3
TP2
Q4,Q5 H SAWTOOTH GEN
RV42 H SAW LEVEL
H SAWTOOTH GEN.
FIX HD
TP13
Q26~Q28 4-TIME H PULSE GEN
RV19 PULSE WIDTH
RV20 PULSE WIDTH
Q29 BUFF
TP14
Q30,R92,C48 H HARMONIC GENERATOR
Q31,Q32 SLOPE CANCELLER
RV21 SLOPE CANCEL
Q36 AMP
Q33~Q35 BLKG MIX
RV22 H HARM SET UP
Q37 INV BUFF
RV23 H HARM GAIN
Q39 -H HARM BUFF
RV24 -H HARM GAIN
RV47 -H HARM BIAS
TP16
TP36
Q38 +H HARM BUFF
RV25 +H HARM GAIN
RV26 +H HARM BIAS
TP15
IC19 H HARM CONT
H HARMONIC GENERATOR
Q153,Q154 H HARM CONT
IC7 -H WP SIG SELECTOR
IC6 +H WP SIG SELECTOR
IC12,Q62,Q63,Q64 -H WIPE SIG CLAMPER
RV31 PAIRRING BAL
IC12,IC10,Q65,Q66 +H WIPE SIG CLAMPER
RV32 PAIRRING BAL
TP46
Q52,Q53 TWIN PULSE KILLER
TP48
Q54 BUFF
IC16 H PAIRRING EFFECT AMP
RV37 PAIRRING BAL
TP21
Q50,Q51 LIMITER
RV29 LIMIT LEV
Q55,Q56 LIMITER
RV30 LIMIT LEV
TP45
Q57,Q58 TWIN PULSE KILLER
Q59 BUFF
TP47
EXTEND LMP IN
CN 6-4
IC10,IC11 BLKG DRIVE
FIX BLKG OUT
FIX BLKG IN
CN 5-1
CN 5-2
Q72 LIMITER
RV36 LIMIT LEV
Q73 BLKG MIXER
TP50
Q70 H WP BUFF
Q71 H-V WP BUFF
IC15 H, H/V WIPE SELECTOR
TP20
IC14,Q147 H,H/V WP SIG CLAMPER
RV35 H SLICE BIAS
FIX HD
TP19
Q74~Q87 H,H/V WP SIG SLICER
PATT MOD IN
BORDER/SOFT 1 IN
CN 16-5
CN 14-1
TP54
WP MOD 1 IN
V WIPE IN
BORDER/SOFT 3 IN
CN 16-1
CN 12-1
CN 13-3
IC10,IC14 V WP SIG CLAMPER
RV34 V SLICE BIAS
TP18
CN 17-2
CN 4-4
T KILLER PULSE OUT
+H SAW OUT
FADER CK-0 IN
FADER CK-1 IN
FADER CK-2 IN
FADER CK-3 IN
FADER CK-4 IN
FADER CK-5 IN
FADER CK-6 IN
FADER CK-7 IN
CN 11-1
CN 11-2
CN 11-3
CN 11-4
CN 11-5
CN 11-6
CN 11-7
CN 11-8
Q126~Q141 RP1,Q120,Q121 D/A CONVERTOR
TP30
FADER EXT IN
CN 18-1
Q122~Q125,Q144,Q150,Q151 FADER DC SET
RV40 FADER DC SET 1
RV41 FADER DC SET 2
TP31
TP32


EXTEND LMP IN
CN 6-4
IC10, IC11
BLKG DRIVE
TP27
FIX BLKG OUT
FIX BLKG IN
CN 5-1
CN 5-2
Q 72
LIMITER
RV36 LIMIT LEV
Q73
BLKG MIXER
TP50
Q70
H WP BUFF
Q71
H-V WP BUFF
IC15
H, H/V WIPE SELECTOR
TP20
IC14, Q147
H, H/V WP SIG CLAMPER
RV35 H SLICE BIAS
FIX HD
TP19
PATT MOD IN
BORDER/SOFT 1 IN
CN 16-5
CN 14-1
TP54
Q74~Q87
H, H/V WP SIG SLICER
CN 14-2
BORDER/SOFT 2 OUT
MOSAIC WP IN
CN 16-4
Q143
MOSAIC WP BUFF
TP24
TP26
Q108, Q109
+H/+V WP SIG MIXER
Q110, Q111
+H/+V WP SIG DRIVE
TP55
Q 88
+H WP SIG AMP
Q 89
+H WP SIG BUFF
TP25
IC 17
WP SIG SELECTOR
Q 112
WP SIG BUFF
Q113
CLAMP
RV39 WP SET UP
Q114
CCF WP BUFF
Q115, Q116
WP SIG MUTING
Q117, Q118
CCF WP DRIVE
TP28
CN 15-2
CCF WP OUT
TP29
Q148, Q149, Q119
WIPE OUT DRIVE
CN 15-4
WP OUT
CN 16-2
WP MOD O IN
TP12
Q 145
+H TRAI BUFF
RV17 +H TRAI GAIN
RV46 +H TRAI BIAS
TP8
TP11
Q 25
-H TRAI BUFF
TP43
RV16 -H TRAI GAIN
RV18 -H TRAI BIAS
IC 7
-H WP SIG SELECTOR
IC12, Q62, Q63, Q64
-H WIPE SIG CLAMPER
RV31 PAIRRING BAL
TP46
Q52, Q53
TWIN PULSE KILLER
TP48
Q54
BUFF
IC16
H PAIRRING EFFECT AMP
RV37 PAIRRING BAL
TP21
Q50, Q51
LIMITER
RV29 LIMIT LEV
Q 19
-H PARA BUFF
RV12 -H PARA GAIN
RV14 -H PARA BIAS
Q16, Q17
AMP
Q18
INV BUFF
Q 9
+H PARA BUFF
TP9
RV11 H PARA GAIN
RV13 +H PARA GAIN
RV45 +H PARA BIAS
WP MOD 1 IN
CN 16-1
V WIPE IN
CN 12-1
BORDER/SOFT 3 IN
CN 13-3
IC10, IC14
V WP SIG CLAMPER
RV34 V SLICE BIAS
TP18
Q90~Q103
V WP SIG SLICER
Q104, Q105
-H/-V WP SIG MIXER
Q106
CLAMP
RV43 BIAS
Q107
-H/-V WP SIG BUFF
TP51
FIX HD
CN 13-4
BORDER/SOFT 4 OUT
CN 13-1
BORDER ON/OFF IN
CN 13-2
SOFT ON/OFF IN
Q55, Q56
LIMITER
RV30 LIMIT LEV
TP45
Q57, Q58
TWIN PULSE KILLER
Q59
BUFF
TP47
IC 6
+H WP SIG SELECTOR
IC12, IC10, Q65, Q66
+H WIPE SIG CLAMPER
RV32 PAIRRING BAL
IC 9
CN 7-2
WP NOR/INV IN
Q46~Q49
PAIRRING PULSE LIMITER
CN 7-3
PAIRRING PULSE OUT
CN 7-1
H·V NOR/INV IN
CN 6-1
FIX VD OUT
CN 6-2
FIX VD IN
TP49
Q42~Q45
PAIRRING PULSE LIMITER
IC 8
IC 10
PAIRRING PULSE GEN.
CN 7-4
PAIR MOD-J IN
CN 7-5
PAIR MOD-K IN
FIX HD
CN17-2
T KILLER PULSE OUT
CN 4-4
+H SAW OUT
TP16
IC19
H HARM CONT
RV47 -H HARM BIAS
TP15
RV26 +H HARM BIAS
FADER CK-0 IN
FADER CK-1 IN
FADER CK-2 IN
FADER CK-3 IN
FADER CK-4 IN
FADER CK-5 IN
FADER CK-6 IN
FADER CK-7 IN
CN11-1
CN11-2
CN11-3
CN11-4
CN11-5
CN11-6
CN11-7
CN11-8
Q126~Q141
RP1, Q120, Q121
D/A CONVERTOR
TP30
TP31
TP32
FADER EXT IN
CN 18-1
Q122~Q125, Q144, Q150, Q151
FADER DC SET
RV40 FADER DC SET 1
RV41 FADER DC SET 2

WP-10 BLOCK(NTSC, PAL, PM)
WEX-2000 (U/C, J)
WEX-2000P (AEP, UK)
WEX-2000PM(BRZ)

CP-54 BOARD


IC3 (1/2)
8BIT MICRO PROCESSOR
Q4,Q5 INNITIAL SETTER
TP9
TP26
TP28
Q18,Q19 WP SPEED CONTROL
Q21 OSC DRIVE
Q20, Q22,Q23 OSC
RV7 FD CK ADJ
RV107 SERVO
RV107 WP SPEED
KEY P-1-0 IN
KEY P-1-1 IN
KEY P-1-2 IN
KEY P-1-3 IN
KEY P-1-4 IN
KEY P-1-5 IN
KEY P-1-6 IN
KEY P-1-7 IN
IC1 BUFF
IC2 BUFF
IC4 DRIVE
IC5 INV
IC6 INV
IC7 INV
IC32,Q44 PROTECTOR
IC32,Q101 Q43 +9V REG
REG +9V IN
+9V
RV2 +9V ADJ
KEY CK P-2-3 OUT
KEY CK P-2-2 OUT
KEY CK P-2-1 OUT
KEY CK P-2-0 OUT
TP38
RV5 PATT MOD FREQ
RV3
RV103 FREQ
Q11 PATT MOD OSC
Q10 OSC DRIVE
Q12 BUFF
TP39
RV14
KY-38, CN13-3
KY-38, CN13-1
Q45,Q46 DC VOLTAGE BUFF
R101 POSITION
KY-38, CN13-2
IC21 BUFF
Q13 PATT MOD AMP
TP24
IC22
Q14 PATT MOD BUFF
PATT MOD OUT
POSI DC V OUT
POSI DC H OUT
IC10 LATCH
Q6 BUFF
Q7 BUFF
Q8 BUFF
Q9 BUFF
TP14 TP15 TP16 TP17 TP22 TP23
RY1
EXTEND LMP OUT
EXTEND LMP OUT
MODE SEG/WG OUT
BD ON/OFF OUT
BD ON/OFF OUT
SHIFT ON/OFF OUT
SOFT ON/OFF OUT
LIMIT DOWN OUT
LIMIT UP OUT
CONTROL DATA A~H
IC33,IC34 7-SEGMENT LED DRIVER
IC39 FADER LED PULSE DRIVER
FADER LED-0 OUT
FADER LED-1 OUT
FADER LED-2 OUT
FADER RED/GREEN OUT
IC8
H-H' bus PULSE SELECTOR
V-V' bus PULSE SELECTOR
WP MOD PULSE SELECTOR
TP6 TP1 TP2 TP3 TP10 TP11 TP4 TP5
H-H' bus-1 OUT
H-H' bus-2 OUT
WP MOD-0 OUT
WP MOD-1 OUT
V-V' bus-0 OUT
V-V' bus-1 OUT
V-V' bus-2 OUT
H-H' bus-0 OUT
D32,D33
IC14 SERVO DATA LATCH
TP13 TP12
FADER CK-7 OUT
FADER CK-0 OUT
FADER CK-4 OUT
FADER CK-5 OUT
FADER CK-6 OUT
FADER CK-1 OUT
FADER CK-2 OUT
FADER CK-3 OUT
LMP ON/OFF OUT
LMP ON/OFF OUT
FADER EXT OUT
IC9 WP SELECT LMP DRIVER
IC15 WP SELECT LMP DRIVER
WP LMP-0 OUT
WP LMP-0 OUT
WP LMP-1 OUT
WP LMP-2 OUT
WP LMP-3 OUT
WP LMP-4 OUT
WP LMP-5 OUT
WP LMP-6 OUT
WP LMP-7 OUT
WP LMP-8 OUT
WP LMP-9 OUT
WP LMP-10 OUT
WP LMP-11 OUT
WP LMP-12 OUT
WP LMP-13 OUT
WP LMP-14 OUT
WP LMP-15 OUT
+H SAW IN
TP19
IC19, IC18, IC20 H MOSAIC GEN.
RV3 H MOSAIC POSI 2
TP32 TP37
Q36 FIX HD BUFF
TP31
IC29,IC30,IC28 FIX HD GEN
RV10 HD WIDTH
Q37 FIX BLKG BUFF
GEN LOCK IN
TP29
SYNC SEPARATOR
Q24~Q26 VIDEO AMP
L1,C43 CHROMA TRAP
Q27 BUFF
Q29 CLAMP
Q28 Q30,Q31 VIDEO CLIP
TP34
RV8 VIDEO SLICE
Q32 INV
FIX VD GEN.
Q42 BUFF
Q33,Q34 CLIP
Q35 INV
IC31 FIX VD GEN.
RV11 VD WIDTH
TP42
Q38 FIX VD BUFF
TP35
TP18
+V SAW IN
IC17,IC18
RV1 V MOSAIC POSI 2
IC3 (2/2) 8BIT MICRO PROCESSOR
TP7
Q2,Q1 FIX VD DRIVE


CN 1-9 KEY CK P-2-3 OUT
CN 1-10 KEY CK P-2-2 OUT
CN1-11 KEY CK P-2-1 OUT
CN1-12 KEY CK P-2-0 OUT
CN 7-3
CN 7-1
RV103 FREQ
TP38
RV 3
RV 5 PATT MOD FREQ
Q 11 PATT MOD OSC
Q 10 OSC DRIVE
CN 7-2
Q 12 BUFF
RV14
TP39
CN 8-5 KY-38, CN13-3
CN 8-3 KY-38, CN13-1
Q45,Q46 DC VOLTAGE BUFF
CN9-1,4
R 101 POSITION
KY-38 ,CN13-2
CN 8-4
CN 9-2
CN 9-3
IC 21 BUFF
Q 13 PATT MOD AMP
TP24
IC 22
Q 14 PATT MOD BUFF
CN 8-1 PATT MOD OUT
CN10-1 POSI DC V OUT
CN10-2 POSI DC H OUT
IC 10 LATCH
A~H
7
Q 6 BUFF
Q 7 BUFF
Q 9 BUFF
Q 8 BUFF
TP14
TP15
TP23
TP22
TP17
TP16
RY 1
25
CN20-3 EXTEND LMP OUT
CN20-4 EXTEND LMP OUT
CN 5-2 MODE SEG/WG OUT
CN 5-1 BD ON/OFF OUT
CN22-2 BD ON/OFF OUT
CN22-3 SHIFT ON/OFF OUT
CN22-1 SOFT ON/OFF OUT
CN 5-4 LIMIT DOWN OUT
CN 5-5 LIMIT UP OUT
IC 13
· NUMBER LED PULSE DRIVER
· WP NOR/INV DRIVER
· WP REV/NOR DRIVER
· PAIR MOD PULSE DRIVER
· H-V NOR/INV DRIVER
D
TP21
TP20
CN 17-3 PAIR MOD-J OUT
CN 17-2 PAIR MOD-K OUT
CN 17-4 WP REV/NOR OUT
CN 17-5 H·V NOR/INV OUT
CN 17-1 WP NOR/INV OUT
IC 38 7-SEGMENT LED DRIVER
B
IC 36 3-STAGE BUFF
IC 37 3-STAGE BUFF
CN23-1 NUMBER LED S-3 OUT
CN23-3 NUMBER LED S-2 OUT
CN23-5 NUMBER LED S-0 OUT
CN23-4 NUMBER LED S-1 OUT
IC33, IC34 7-SEGMENT LED DRIVER
CN23-6 NUMBER LED C-1 OUT
CN23-2 NUMBER LED C-2 OUT
CN23-7 NUMBER LED C-0 OUT
IC 12 MOSAIC WP PULSE SELECTOR
IC 24 MOSAIC WP PULSE SELECTOR
IC 11 MOSAIC WP PULSE SELECTOR
IC 23 MOSAIC WP PULSE SELECTOR
Q16, Q17 MOSAIC WP LEVEL SET
RV6 MOSAIC WP LEVEL
Q 15 MOSAIC WP BUFF
TP25
CN18-1 MOSAIC WP OUT
C 39
ER LED
.SE
VER
CN24-1 FADER LED-0 OUT
CN24-2 FADER LED-1 OUT
CN24-3 FADER LED-2 OUT
CN24-4 FADER RED/GREEN OUT
IC 8
H' bus PULSE
LECTOR
V' bus PULSE
LECTOR
MOD PULSE
LECTOR
TP6 TP1 TP2 TP3 TP10 TP11 TP4 TP5
CN15-5 H-H' bus-1 OUT
CN15-8 H-H' bus-2 OUT
CN15-7 WP MOD-0 OUT
CN15-6 WP MOD-1 OUT
CN15-4 V-V' bus-0 OUT
CN15-3 V-V' bus-1 OUT
CN15-2 V-V' bus-2 OUT
CN15-1 H-H' bus-0 OUT
D32, D33
A
IC 14
RVO DATA
LATCH
TP13 TP12
CN16-8 FADER CK-7 OUT
CN16-1 FADER CK-0 OUT
CN16-5 FADER CK-4 OUT
CN16-6 FADER CK-5 OUT
CN16-7 FADER CK-6 OUT
CN16-2 FADER CK-1 OUT
CN16-3 FADER CK-2 OUT
CN16-4 FADER CK-3 OUT
IC 9
SELECT
DRIVER
CN20-2 ▼ LMP ON/OFF OUT
CN20-1 ▲ LMP ON/OFF OUT
CN20-5 FADER EXT OUT
IC 15 WP SELECT LMP DRIVER
CN23-8 WP LMP-0 OUT
CN3-8 WP LMP-0 OUT
CN3-7 WP LMP-1 OUT
CN3-6 WP LMP-2 OUT
CN3-5 WP LMP-3 OUT
CN3-4 WP LMP-4 OUT
CN3-3 WP LMP-5 OUT
CN3-2 WP LMP-6 OUT
CN3-1 WP LMP-7 OUT
CN4-1 WP LMP-8 OUT
CN4-2 WP LMP-9 OUT
CN4-3 WP LMP-10 OUT
CN4-4 WP LMP-11 OUT
CN4-5 WP LMP-12 OUT
CN4-6 WP LMP-13 OUT
CN4-7 WP LMP-14 OUT
CN4-8 WP LMP-15 OUT
+H SAW IN
CN 6-2
TP19
IC19, IC18, IC20 H MOSAIC GEN.
RV3 H MOSAIC POSI 2
RV4 H MOSAIC POSI 1
TP32
Q36 FIX HD BUFF
TP37
CN19-3 FIX HD OUT
TP31
IC29, IC30, IC28 FIX HD GEN
RV10 HD WIDTH
29
30
Q 37 FIX BLKG BUFF
TP36
CN19-2 FIX BLKG OUT
GEN LOCK IN
CN13-2
TP29
SYNC SEPARATOR
Q24~Q26 VIDEO AMP
L1, C43 CHROMA TRAP
Q27 BUFF
Q29 CLAMP
Q28 Q30, Q31 VIDEO CLIP
TP34
RV 8 VIDEO SLICE
Q32 INV
FIX VD GEN.
Q 42 BUFF
Q33, Q34 CLIP
Q 35 INV
IC 31 FIX VD GEN.
RV11 VD WIDTH
TP42
Q38 FIX VD BUFF
TP35
+V SAW IN
CN 6-1
TP18
IC17, IC18 IC20 Y MOSAIC GEN.
RV1 V MOSAIC POSI 2
RV2 V MOSAIC POSI 1
CN19-4 FIX VD OUT
IC 3 (2/2) 8BIT MICRO PROCESSOR
To
DB7
TP7
Q2, Q1 FIX VD DRIVE
6
35
C

CP BLOCK (NTSC, PAL, PM)
WEX-2000 (U/C, J)
WEX-2000P (AEP, UK)
WEX-2000PM (BRZ)

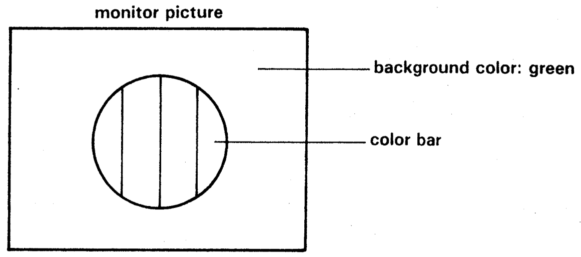
4-2. MEASURING CONDITIONS OF VOLTAGE VALUE AND WAVEFORM

Conditions

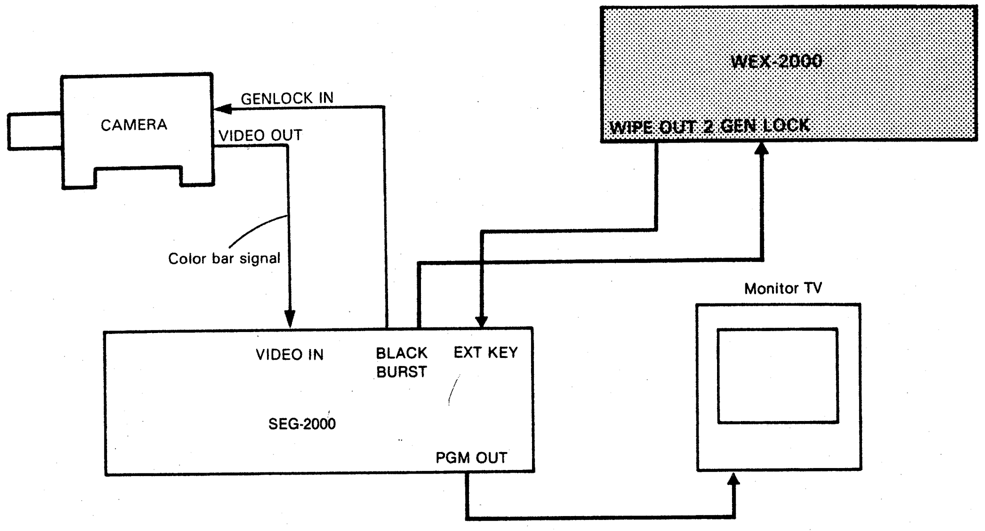
The voltage value and waveform in all the schematic diagrams described in this manual are checked and shot under the same conditions.
The voltage value is also measured using a digital voltmeter (with an input resistance of 10MΩ).

Setting Position of Switches

EXTENDER switch : ON
POSITION switch : OFF
SYMMETRY control : At mechanically intermediate
PATTERN MODULATION switch : OFF
SOFTNESS/BORDER selector : HARD
PAIRING switch : OFF
WIPE SELECT keys : No.4 ◘

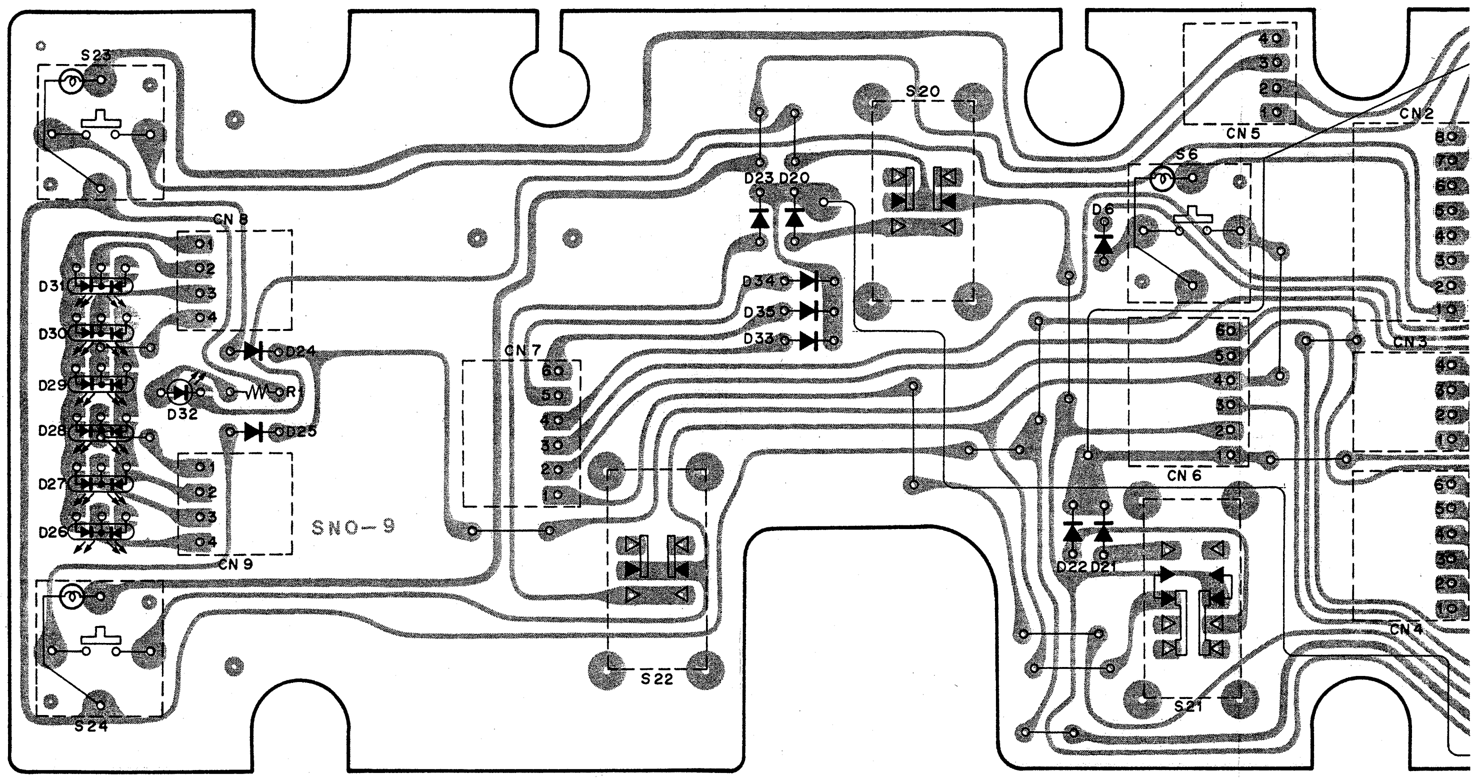

monitor picture
background color: green
color bar

Connection Diagram


CAMERA
GENLOCK IN
VIDEO OUT
WEX-2000
WIPE OUT 2 GEN LOCK
Color bar signal
VIDEO IN
BLACK BURST
EXT KEY
SEG-2000
PGM OUT
Monitor TV

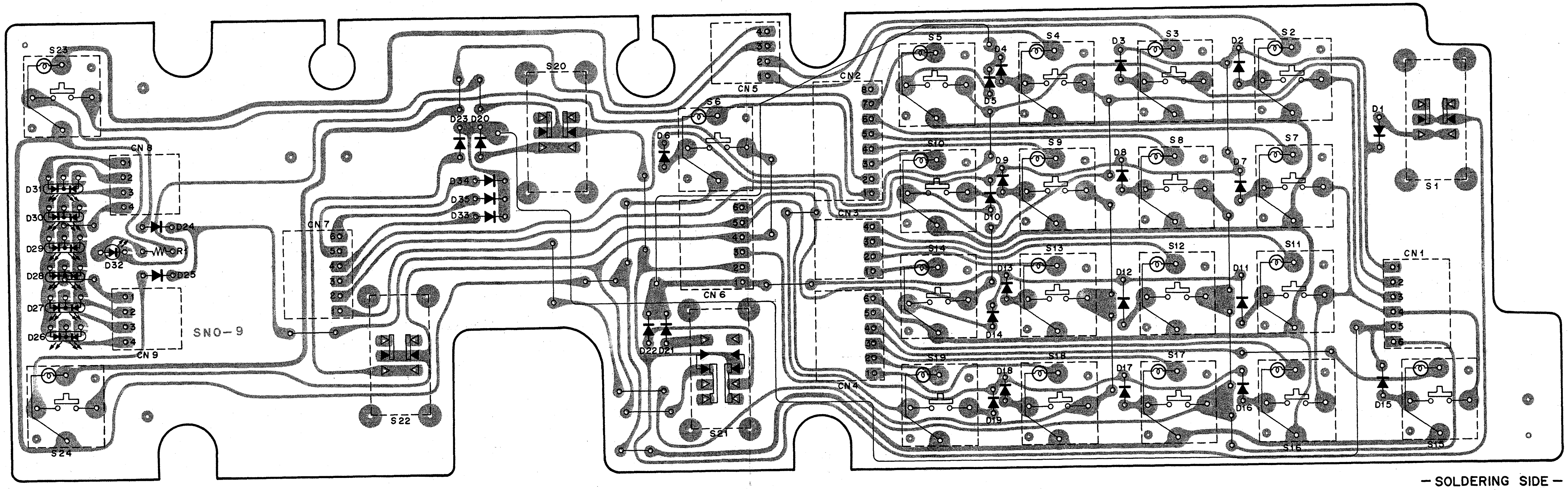
4-3. SCHEMATIC AND MOUNTING DIAGRAM

KY-37 BOARD


S23
S20
CN5
CN2
S6
CN8
D31
D30
D29
D28
D27
D26
D23
D20
D6
D34
D35
D33
D24
R1
D32
D25
CN7
CN9
SNO-9
CN6
CN3
D22
D21
S22
S21
S24
CN4

4-3. SCHEMATIC AND MOUNTING DIAGRAM

KY-37 BOARD

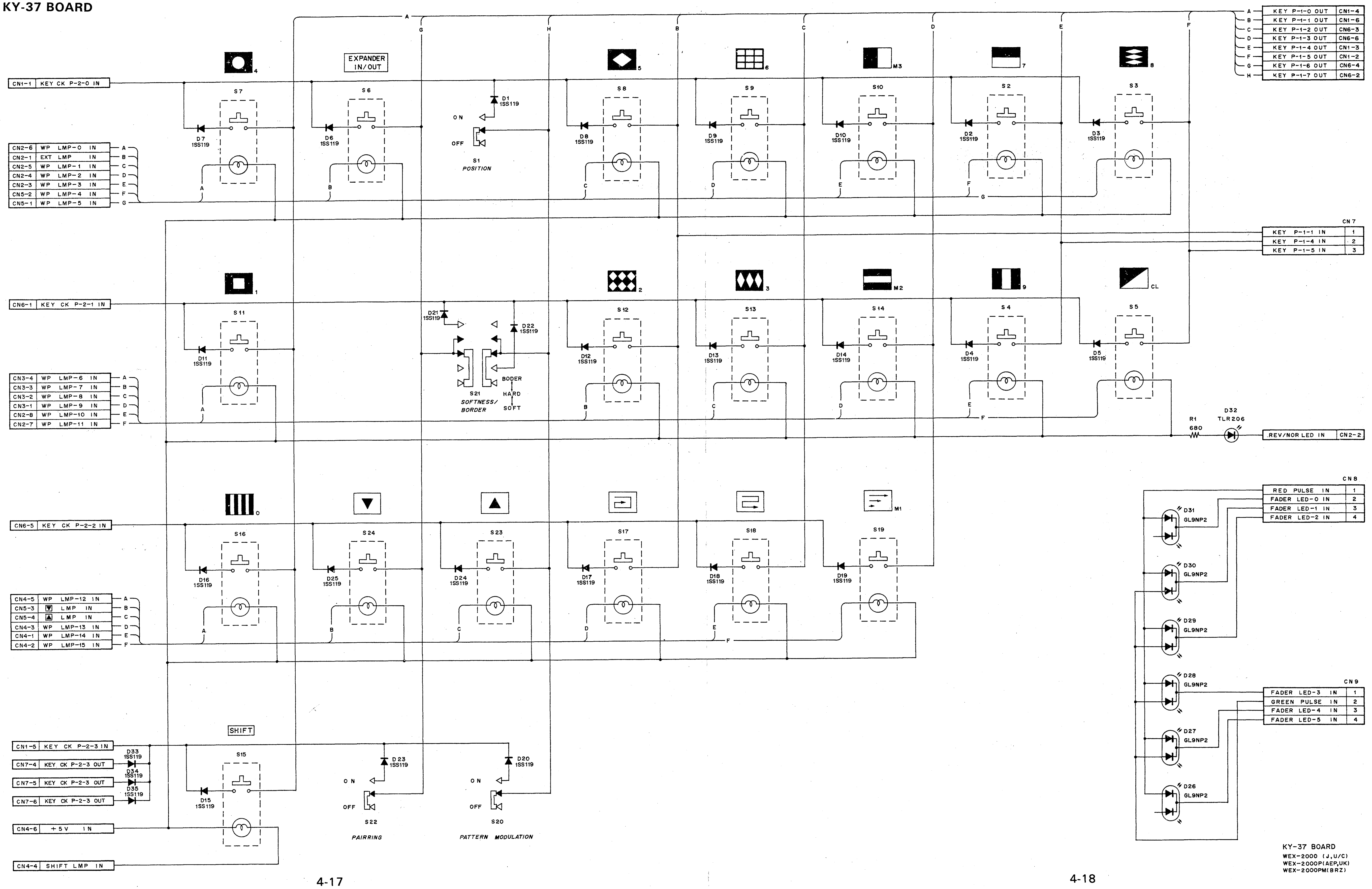

S23
S24
CN8
CN9
D31
D30
D29
D28
D27
D26
D32
D24
D25
R1
SNO-9
CN7
D23 D20
D34
D35
D33
S20
S22
D22 D21
S21
CN6
CN5
D6
S6
CN2
CN3
CN4
S5
S4
S3
S2
D4
D5
D3
D2
S10
S9
S8
S7
D9
D10
D8
D7
D1
S1
S14
S13
S12
S11
D13
D14
D12
D11
CN1
S19
S18
S17
S16
S15
D18
D19
D17
D16
D15

— SOLDERING SIDE —

KY-37 BOARD -11

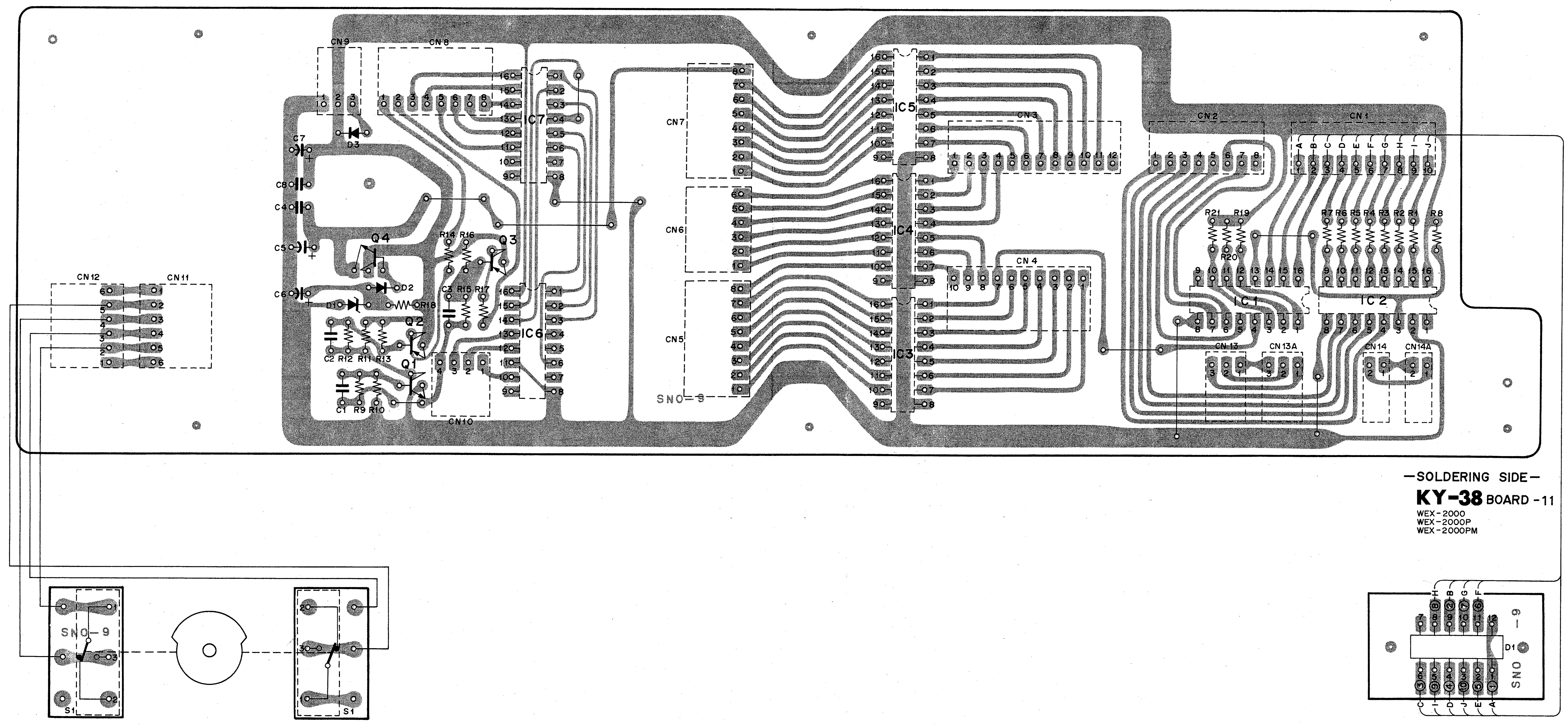
WEX - 2000
WEX - 2000P
WEX - 2000PM

KY-37 BOARD


CN1-1 KEY CK P-2-0 IN
CN2-6 WP LMP-0 IN
CN2-1 EXT LMP IN
CN2-5 WP LMP-1 IN
CN2-4 WP LMP-2 IN
CN2-3 WP LMP-3 IN
CN5-2 WP LMP-4 IN
CN5-1 WP LMP-5 IN
A
B
C
D
E
F
G
H
4
EXPANDER IN/OUT
5
6
M3
7
8
S7
S6
S8
S9
S10
S2
S3
D7 1SS119
D6 1SS119
D1 1SS119
ON
OFF
S1 POSITION
D8 1SS119
D9 1SS119
D10 1SS119
D2 1SS119
D3 1SS119
A KEY P-1-0 OUT CN1-4
B KEY P-1-1 OUT CN1-6
C KEY P-1-2 OUT CN6-3
D KEY P-1-3 OUT CN6-6
E KEY P-1-4 OUT CN1-3
F KEY P-1-5 OUT CN1-2
G KEY P-1-6 OUT CN6-4
H KEY P-1-7 OUT CN6-2
CN7
KEY P-1-1 IN 1
KEY P-1-4 IN 2
KEY P-1-5 IN 3
CN6-1 KEY CK P-2-1 IN
CN3-4 WP LMP-6 IN
CN3-3 WP LMP-7 IN
CN3-2 WP LMP-8 IN
CN3-1 WP LMP-9 IN
CN2-8 WP LMP-10 IN
CN2-7 WP LMP-11 IN
1
2
3
M2
9
CL
S11
S12
S13
S14
S4
S5
D11 1SS119
D21 1SS119
D22 1SS119
S21 SOFTNESS/ BORDER
BODER
HARD
SOFT
D12 1SS119
D13 1SS119
D14 1SS119
D4 1SS119
D5 1SS119
R1 680
D32 TLR206
REV/NOR LED IN CN2-2
CN6-5 KEY CK P-2-2 IN
CN4-5 WP LMP-12 IN
CN5-3 ▼ LMP IN
CN5-4 ▲ LMP IN
CN4-3 WP LMP-13 IN
CN4-1 WP LMP-14 IN
CN4-2 WP LMP-15 IN
0
M1
S16
S24
S23
S17
S18
S19
D16 1SS119
D25 1SS119
D24 1SS119
D17 1SS119
D18 1SS119
D19 1SS119
CN8
RED PULSE IN 1
FADER LED-0 IN 2
FADER LED-1 IN 3
FADER LED-2 IN 4
D31 GL9NP2
D30 GL9NP2
D29 GL9NP2
D28 GL9NP2
D27 GL9NP2
D26 GL9NP2
CN9
FADER LED-3 IN 1
GREEN PULSE IN 2
FADER LED-4 IN 3
FADER LED-5 IN 4
SHIFT
CN1-5 KEY CK P-2-3 IN
CN7-4 KEY CK P-2-3 OUT
CN7-5 KEY CK P-2-3 OUT
CN7-6 KEY CK P-2-3 OUT
D33 1SS119
D34 1SS119
D35 1SS119
S15
D15 1SS119
CN4-6 +5V IN
CN4-4 SHIFT LMP IN
D23 1SS119
D20 1SS119
ON
OFF
S22 PAIRRING
S20 PATTERN MODULATION

KY-37 BOARD
WEX-2000 (J,U/C)
WEX-2000P(AEP,UK)
WEX-2000PM(BRZ)

KY-38 BOARD
LP-22 BOARD
SW-25 BOARD

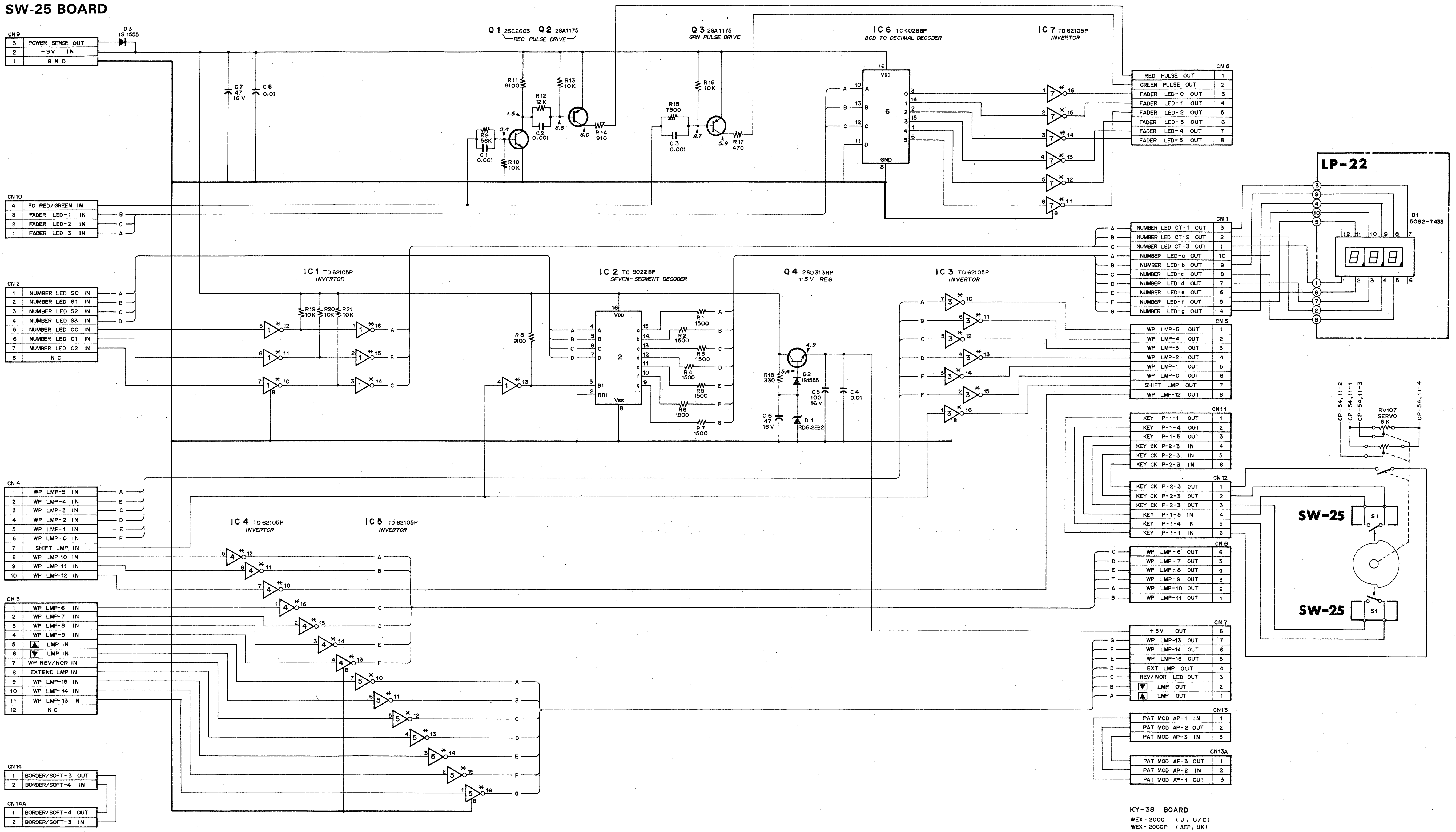

CN9
CN8
CN7
CN6
CN5
CN3
CN4
CN2
CN1
CN10
CN11
CN12
CN13
CN13A
CN14
CN14A
IC1
IC2
IC3
IC4
IC5
IC6
IC7
Q1
Q2
Q3
Q4
D1
D2
D3
C1
C2
C3
C4
C5
C6
C7
C8
R1
R2
R3
R4
R5
R6
R7
R8
R9
R10
R11
R12
R13
R14
R15
R16
R17
R18
R19
R20
R21
SNO-9
S1

—SOLDERING SIDE—
SW-25 BOARD -11
WEX-2000
WEX-2000P
WEX-2000PM

—SOLDERING SIDE—
KY-38 BOARD -11
WEX-2000
WEX-2000P
WEX-2000PM

—SOLDERING SIDE—
LP-22 BOARD -11
WEX-2000
WEX-2000P
WEX-2000PM

KY-38 BOARD
LP-22 BOARD
SW-25 BOARD

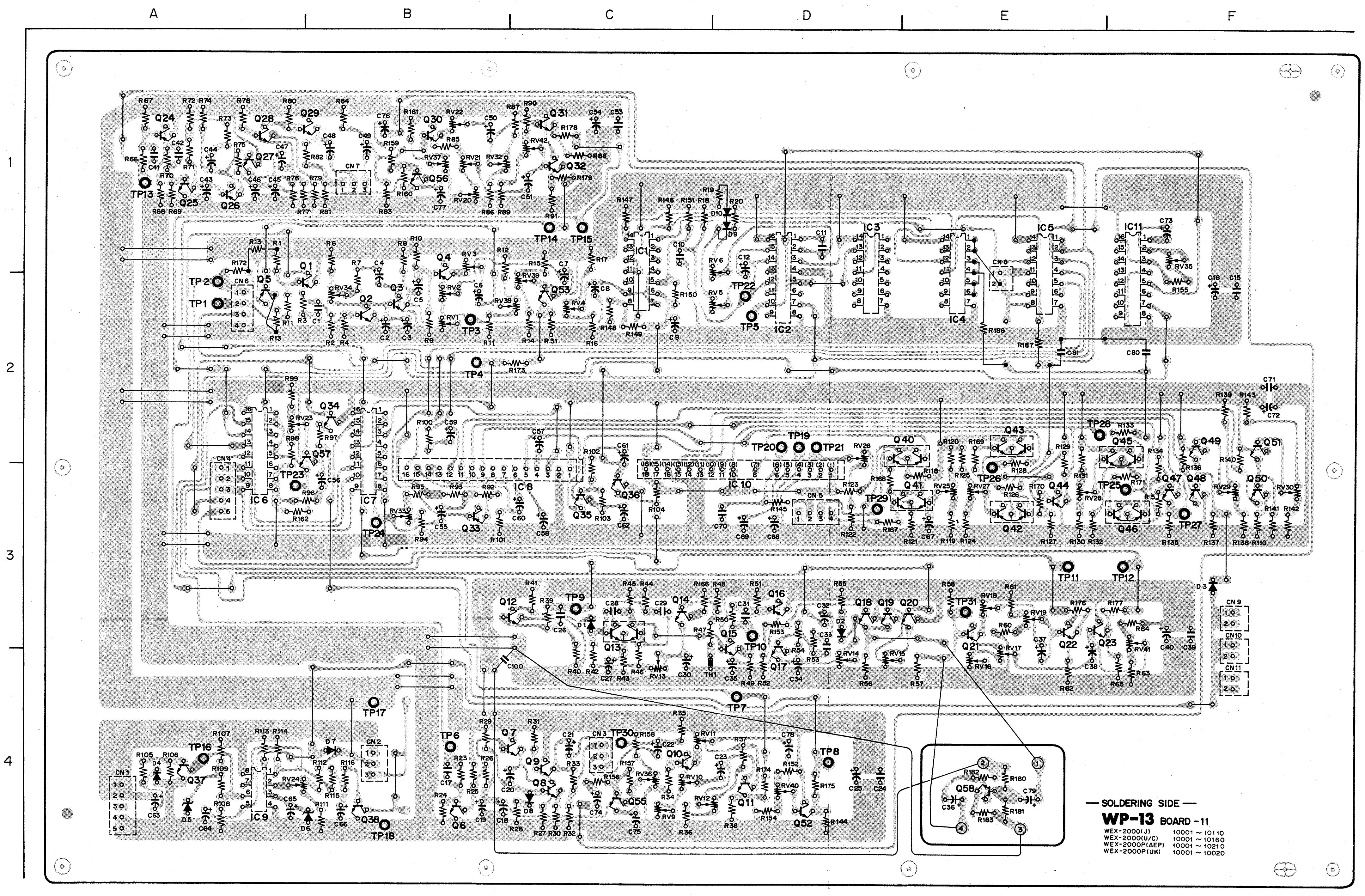

CN9
3 POWER SENSE OUT
2 +9V IN
1 GND
D3 1S1555
C7 47 16V
C8 0.01
Q1 2SC2603 Q2 2SA1175 RED PULSE DRIVE
R11 9100
R12 12K
R13 10K
R9 56K
C1 0.001
C2 0.001
R10 10K
R14 910
Q3 2SA1175 GRN PULSE DRIVE
R15 7500
R16 10K
C3 0.001
R17 470
IC6 TC4028BP BCD TO DECIMAL DECODER
IC7 TD62105P INVERTOR
CN8
RED PULSE OUT 1
GREEN PULSE OUT 2
FADER LED-0 OUT 3
FADER LED-1 OUT 4
FADER LED-2 OUT 5
FADER LED-3 OUT 6
FADER LED-4 OUT 7
FADER LED-5 OUT 8
CN10
4 FD RED/GREEN IN
3 FADER LED-1 IN
2 FADER LED-2 IN
1 FADER LED-3 IN
CN2
1 NUMBER LED S0 IN
2 NUMBER LED S1 IN
3 NUMBER LED S2 IN
4 NUMBER LED S3 IN
5 NUMBER LED C0 IN
6 NUMBER LED C1 IN
7 NUMBER LED C2 IN
8 NC
IC1 TD62105P INVERTOR
R19 10K R20 10K R21 10K
R8 9100
IC2 TC5022BP SEVEN-SEGMENT DECODER
R1 1500 R2 1500 R3 1500 R4 1500 R5 1500 R6 1500 R7 1500
Q4 2SD313HP +5V REG
R18 330
D2 1S1555
C5 100 16V
C4 0.01
C6 47 16V
D1 RD6.2EB2
IC3 TD62105P INVERTOR
CN1
NUMBER LED CT-1 OUT 3
NUMBER LED CT-2 OUT 2
NUMBER LED CT-3 OUT 1
NUMBER LED-a OUT 10
NUMBER LED-b OUT 9
NUMBER LED-c OUT 8
NUMBER LED-d OUT 7
NUMBER LED-e OUT 6
NUMBER LED-f OUT 5
NUMBER LED-g OUT 4
LP-22
D1 5082-7433
CN5
WP LMP-5 OUT 1
WP LMP-4 OUT 2
WP LMP-3 OUT 3
WP LMP-2 OUT 4
WP LMP-1 OUT 5
WP LMP-0 OUT 6
SHIFT LMP OUT 7
WP LMP-12 OUT 8
CN11
KEY P-1-1 OUT 1
KEY P-1-4 OUT 2
KEY P-1-5 OUT 3
KEY CK P-2-3 IN 4
KEY CK P-2-3 IN 5
KEY CK P-2-3 IN 6
CN12
KEY CK P-2-3 OUT 1
KEY CK P-2-3 OUT 2
KEY CK P-2-3 OUT 3
KEY P-1-5 IN 4
KEY P-1-4 IN 5
KEY P-1-1 IN 6
CP-54, 11-2 CP-54, 11-1 CP-54, 11-3 CP-54, 11-4
RV107 SERVO 5K
SW-25
S1
CN4
1 WP LMP-5 IN
2 WP LMP-4 IN
3 WP LMP-3 IN
4 WP LMP-2 IN
5 WP LMP-1 IN
6 WP LMP-0 IN
7 SHIFT LMP IN
8 WP LMP-10 IN
9 WP LMP-11 IN
10 WP LMP-12 IN
IC4 TD62105P INVERTOR
IC5 TD62105P INVERTOR
CN6
WP LMP-6 OUT 6
WP LMP-7 OUT 5
WP LMP-8 OUT 4
WP LMP-9 OUT 3
WP LMP-10 OUT 2
WP LMP-11 OUT 1
CN3
1 WP LMP-6 IN
2 WP LMP-7 IN
3 WP LMP-8 IN
4 WP LMP-9 IN
5 ▲ LMP IN
6 ▼ LMP IN
7 WP REV/NOR IN
8 EXTEND LMP IN
9 WP LMP-15 IN
10 WP LMP-14 IN
11 WP LMP-13 IN
12 NC
CN7
+5V OUT 8
WP LMP-13 OUT 7
WP LMP-14 OUT 6
WP LMP-15 OUT 5
EXT LMP OUT 4
REV/NOR LED OUT 3
▼ LMP OUT 2
▲ LMP OUT 1
CN13
PAT MOD AP-1 IN 1
PAT MOD AP-2 OUT 2
PAT MOD AP-3 IN 3
CN13A
PAT MOD AP-3 OUT 1
PAT MOD AP-2 IN 2
PAT MOD AP-1 OUT 3
CN14
1 BORDER/SOFT-3 OUT
2 BORDER/SOFT-4 IN
CN14A
1 BORDER/SOFT-4 OUT
2 BORDER/SOFT-3 IN

KY-38 BOARD
WEX-2000 (J, U/C)
WEX-2000P (AEP, UK)
WEX-2000PM (BRZ)

SER. NO.		
	WEX-2000 (U/C)	10001 to 10160
	WEX-2000P (AEP)	10001 to 10210
	WEX-2000P (UK)	10001 to 10020

WP-9 BOARD
WP-13 BOARD

WF



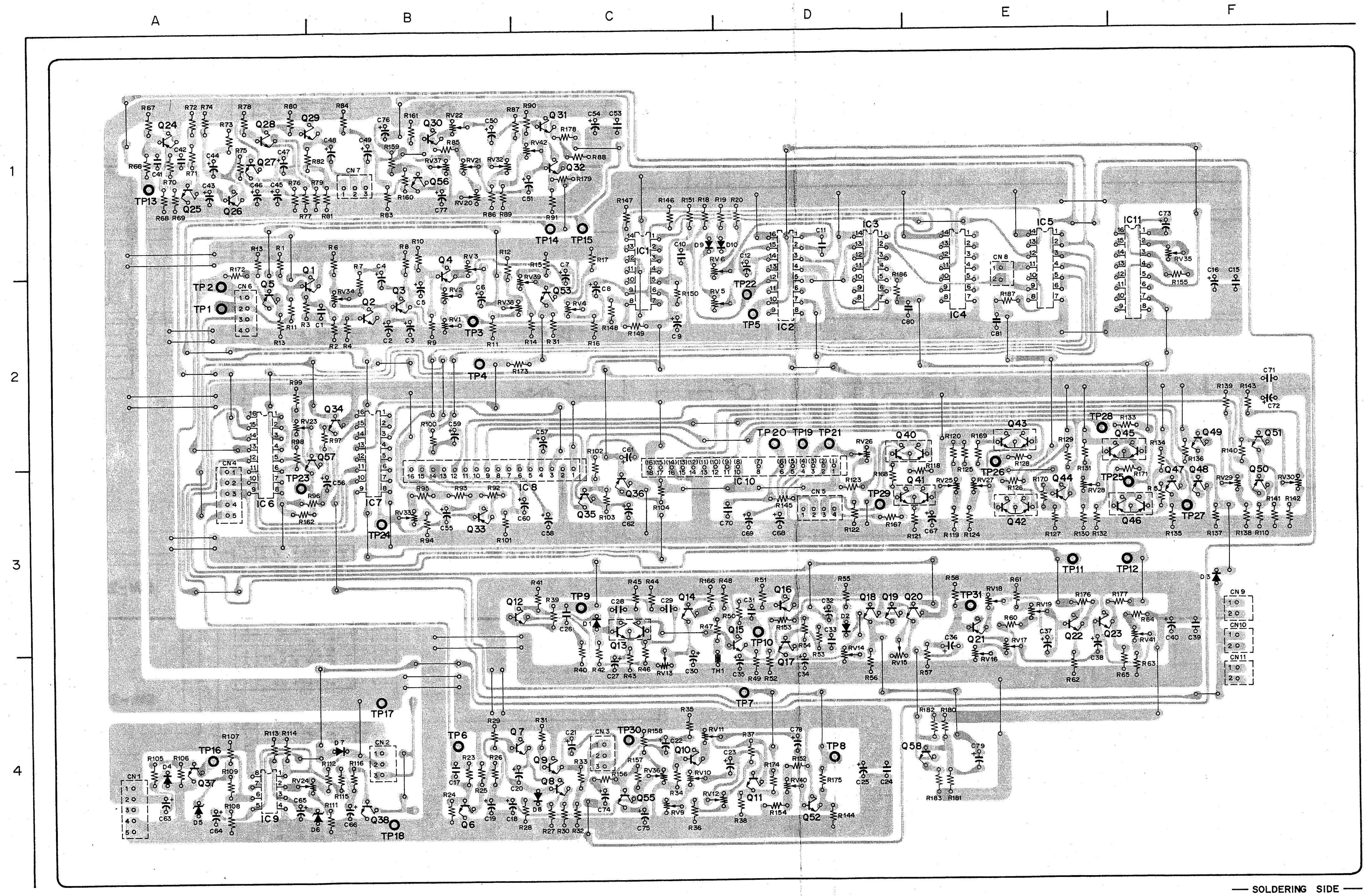
— SOLDERING SIDE —
WP-13 BOARD -11
WEX-2000(J) 10001 ~ 10110
WEX-2000(U/C) 10001 ~ 10160
WEX-2000P(AEP) 10001 ~ 10210
WEX-2000P(UK) 10001 ~ 10020

— SOLDERING SIDE —
WP-9 BOARD-11
WEX-2000(J) 10001 ~ 10110
WEX-2000(U/C) 10001 ~ 10160
WEX-2000P(AEP) 10001 ~ 10210
WEX-2000P(UK) 10001 ~ 10020

CN1	A-4
CN2	B-4
CN3	C-4
CN4	A-3
CN5	D-3
CN6	A-2
CN7	B-1
CN8	E-2
CN9	F-3
CN10	F-3
CN11	F-4
D1	C-3
D2	D-3
D3	F-3
D4	A-4
D5	A-4
D6	B-4
D7	B-4
D8	C-4
D9	D-1
D10	D-1
IC1	C-1
IC2	D-2
IC3	D-1
IC4	E-2
IC5	E-1
IC6	A-2
IC7	B-2
IC8	C-3
IC9	A-4
IC10	D-3
IC11	F-1
Q1	B-2
Q2	B-2
Q3	B-2
Q4	B-1
Q5	A-2
Q6	B-4
Q7	C-4
Q8	C-4
Q9	C-4
Q10	C-4
Q11	D-4
Q12	C-3
Q13	C-3
Q14	C-3
Q15	D-3
Q16	D-3
Q17	D-3
Q18	D-3
Q19	D-3
Q20	D-3
Q21	E-3
Q22	E-3
Q23	E-3
Q24	A-1
Q25	A-1
Q26	A-1
Q27	A-1
Q28	A-1
Q29	B-1
Q30	B-1
Q31	C-1
Q32	C-1
Q33	B-3
Q34	B-2
Q35	C-3
Q36	C-3
Q37	A-4
Q38	B-4
Q40	D-2
Q41	E-3
Q42	E-3
Q43	E-2
Q44	E-3
Q45	F-2
Q46	F-3
Q47	F-3
Q48	F-3
Q49	F-2
Q50	F-3
Q51	F-2
Q52	D-4
Q53	C-2
Q55	C-4
Q56	B-1
Q57	B-2
Q58	E-4
RV1	B-2
RV2	B-2
RV3	B-1
RV4	C-2
RV5	D-2
RV6	D-1
RV9	C-4
RV10	C-4
RV11	C-4
RV12	D-4
RV13	C-4
RV14	D-4
RV15	D-4
RV16	E-4
RV17	E-4
RV18	E-3
RV19	E-3
RV20	B-1
RV21	B-1
RV22	B-1
RV23	A-2
RV24	A-4
RV25	E-3
RV26	D-2
RV27	E-3
RV28	E-3
RV29	F-3
RV30	F-3
RV32	B-1
RV33	B-3
RV34	B-2
RV35	F-1
RV36	C-4
RV37	B-1
RV38	C-2
RV39	C-2
RV40	D-4
RV41	F-3
RV42	C-1
TH1	D-4
TP1	A-2
TP2	A-2
TP3	B-2
TP4	B-2
TP5	D-2
TP6	B-4
TP7	D-4
TP8	D-4
TP9	C-3
TP10	D-3
TP11	E-3
TP12	F-3
TP13	A-1
TP14	C-1
TP15	C-1
TP16	A-4
TP17	B-4
TP18	B-4
TP19	D-2
TP20	D-2
TP21	D-2
TP22	D-2
TP23	A-3
TP24	B-3
TP25	F-3
TP26	E-3
TP27	F-3
TP28	E-2
TP29	D-3
TP30	C-4
TP31	E-3

SER. NO.	WEX-2000 (U/C)	10161～
	WEX-2000P (AEP)	10211～
	WEX-2000P (UK)	10021～
	WEX-2000PM (BRZ)	10001～

WP-9 BOARD



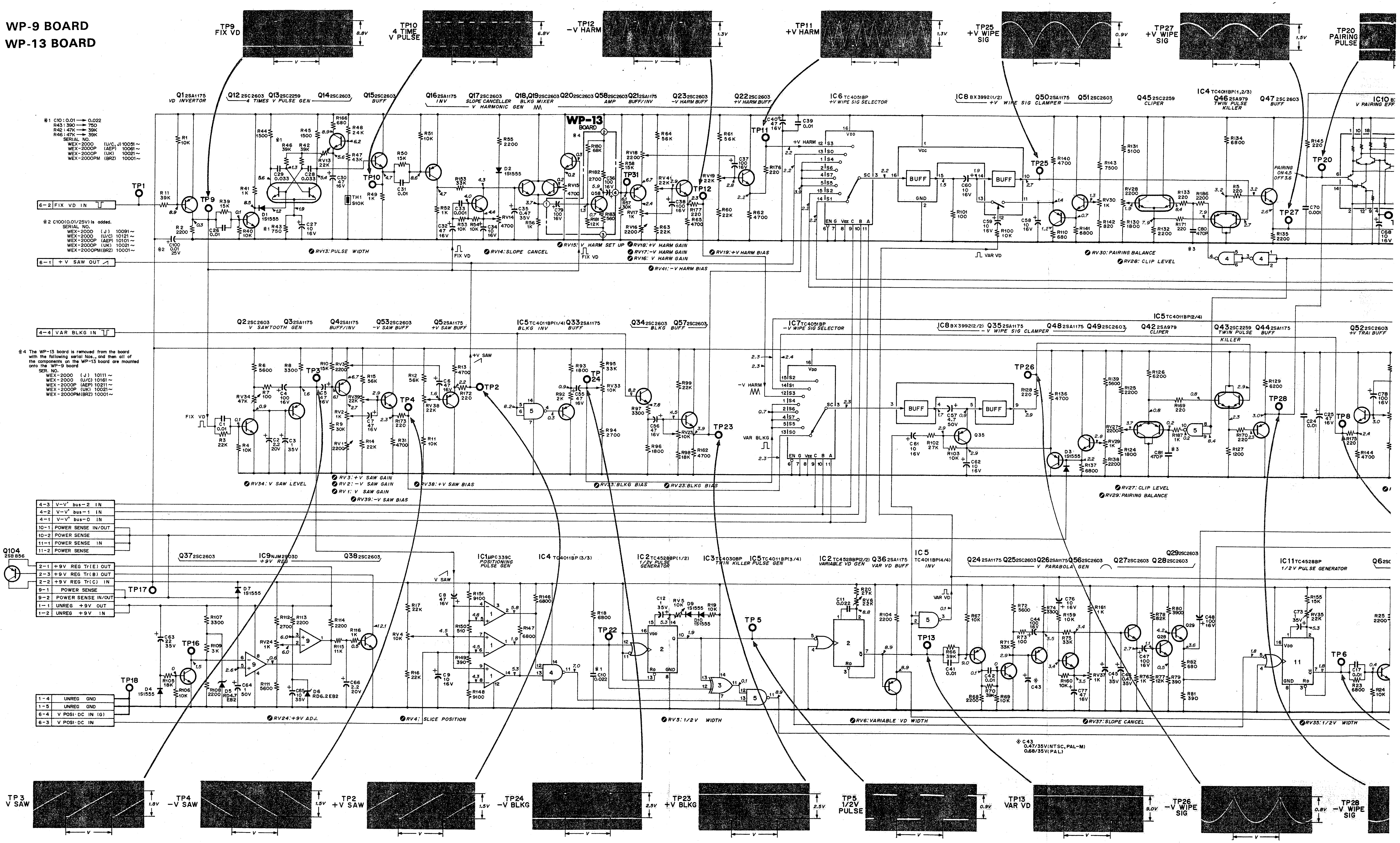
— SOLDERING SIDE —

WP-9 BOARD-13

WEX-2000(J) 10111～
WEX-2000(U/C) 10161～
WEX-2000P(AEP) 10211～
WEX-2000P(UK) 10021～
WEX-2000PM(BRZ) 10001～

CN1	A-4
CN2	B-4
CN3	C-4
CN4	A-3
CN5	D-3
CN6	A-2
CN7	B-1
CN8	E-2
CN9	F-3
CN10	F-3
CN11	F-4
D1	C-3
D2	D-3
D3	F-3
D4	A-4
D5	A-4
D6	B-4
D7	B-4
D8	C-4
D9	C-1
D10	D-1
IC1	C-1
IC2	D-2
IC3	D-1
IC4	E-2
IC5	E-1
IC6	A-2
IC7	B-2
IC8	C-3
IC9	A-4
IC10	D-3
IC11	F-1
Q1	B-2
Q2	B-2
Q3	B-2
Q4	B-1
Q5	A-2
Q6	B-4
Q7	C-4
Q8	C-4
Q9	C-4
Q10	C-4
Q11	D-4
Q12	C-3
Q13	C-3
Q14	C-3
Q15	D-3
Q16	D-3
Q17	D-3
Q18	D-3
Q19	D-3
Q20	D-3
Q21	E-3
Q22	E-3
Q23	E-3
Q24	A-1
Q25	A-1
Q26	A-1
Q27	A-1
Q28	A-1
Q29	B-1
Q30	B-1
Q31	C-1
Q32	C-1
Q33	B-3
Q34	B-2
Q35	C-3
Q36	C-3
Q37	A-4
Q38	B-4
Q40	D-2
Q41	E-3
Q42	E-3
Q43	E-2
Q44	E-3
Q45	F-2
Q46	F-3
Q47	F-3
Q48	F-3
Q49	F-2
Q50	F-3
Q51	F-2
Q52	D-4
Q53	C-2
Q55	C-4
Q56	B-1
Q57	B-2
Q58	E-4
RV1	B-2
RV2	B-2
RV3	B-1
RV4	C-2
RV5	D-2
RV6	D-1
RV9	C-4
RV10	C-4
RV11	C-4
RV12	D-4
RV13	C-4
RV14	D-4
RV15	D-4
RV16	E-4
RV17	E-4
RV18	E-3
RV19	E-3
RV20	B-1
RV21	B-1
RV22	B-1
RV23	A-2
RV24	A-4
RV25	E-3
RV26	D-2
RV27	E-3
RV28	F-3
RV29	F-3
RV30	F-3
RV32	B-1
RV33	B-3
RV34	B-2
RV35	F-1
RV36	C-4
RV37	B-1
RV38	C-2
RV39	C-2
RV40	D-4
RV41	F-3
RV42	C-1
TH1	D-4
TP1	A-2
TP2	A-2
TP3	B-2
TP4	B-2
TP5	D-2
TP6	B-4
TP7	D-4
TP8	D-4
TP9	C-3
TP10	D-3
TP11	E-3
TP12	F-3
TP13	A-1
TP14	C-1
TP15	C-1
TP16	A-4
TP17	B-4
TP18	B-4
TP19	D-2
TP20	D-2
TP21	D-2
TP22	D-2
TP23	A-3
TP24	B-3
TP25	F-3
TP26	E-3
TP27	F-3
TP28	E-2
TP29	D-3
TP30	C-4
TP31	E-3

WP-9 BOARD
WP-13 BOARD

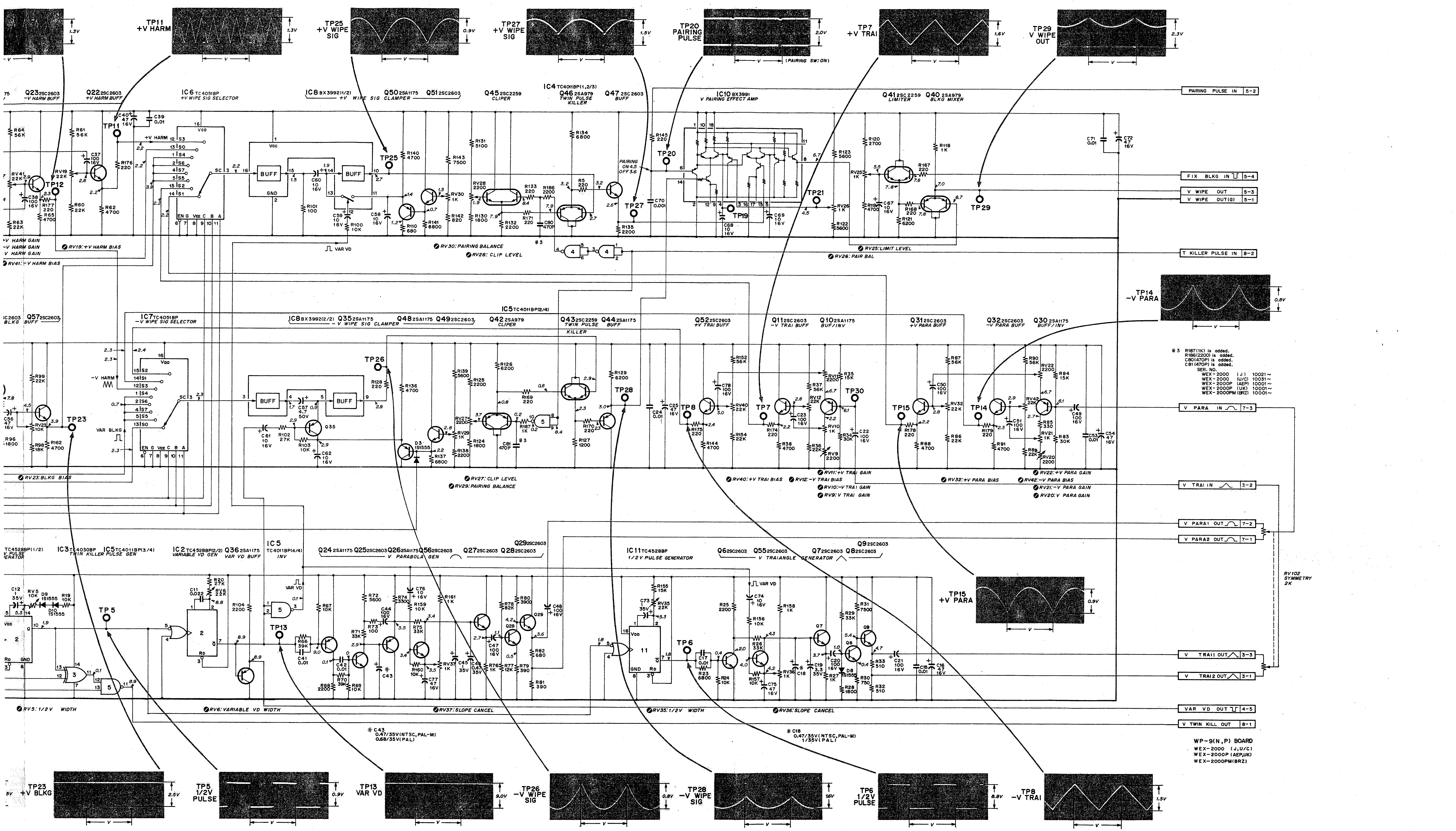

TP9 FIX VD
TP10 4 TIME V PULSE
-V HARM TP12
TP11 +V HARM
TP25 +V WIPE SIG
TP27 +V WIPE SIG
TP20 PAIRING PULSE
Q1 2SA1175 VD INVERTOR
Q12 2SC2603 Q13 2SC2259 4 TIMES V PULSE GEN
Q14 2SC2603
Q15 2SC2603 BUFF
Q16 2SA1175 INV
Q17 2SC2603 SLOPE CANCELLER
Q18,Q19 2SC2603 BLKG MIXER
V HARMONIC GEN
Q20 2SC2603 Q58 2SC2603 AMP
Q21 2SA1175 BUFF/INV
Q23 2SC2603 -V HARM BUFF
Q22 2SC2603 +V HARM BUFF
IC6 TC4051BP +V WIPE SIG SELECTOR
IC8 BX3992(1/2) +V WIPE SIG CLAMPER
Q50 2SA1175 Q51 2SC2603
Q45 2SC2259 CLIPER
IC4 TC4011BP(1,2/3)
Q46 2SA979 TWIN PULSE KILLER
Q47 2SC2603 BUFF
IC10 V PAIRING EFF
WP-13 BOARD
6-2 FIX VD IN
6-1 +V SAW OUT
TP1
RV13: PULSE WIDTH
RV14: SLOPE CANCEL
RV15: V HARM SET UP
RV18: +V HARM GAIN
RV17: -V HARM GAIN
RV16: V HARM GAIN
RV41: -V HARM BIAS
RV19: +V HARM BIAS
RV30: PAIRING BALANCE
RV28: CLIP LEVEL
FIX VD
VAR VD
4-4 VAR BLKG IN
Q2 2SC2603 V SAWTOOTH GEN
Q3 2SA1175
Q4 2SA1175 BUFF/INV
Q53 2SC2603 -V SAW BUFF
Q5 2SA1175 +V SAW BUFF
IC5 TC4011BP(1/4) BLKG INV
Q33 2SA1175 BUFF
Q34 2SC2603 Q57 2SC2603 BLKG BUFF
IC7 TC4051BP -V WIPE SIG SELECTOR
IC8 BX3992(2/2) Q35 2SA1175 -V WIPE SIG CLAMPER
Q48 2SA1175 Q49 2SC2603
IC5 TC4011BP(2/4)
Q42 2SA979 CLIPER
Q43 2SC2259 Q44 2SA1175 TWIN PULSE KILLER BUFF
Q52 2SC2603 +V TRAI BUFF
TP3 TP4 TP2 TP24 TP23 TP26 TP28 TP8
+V SAW
-V HARM
VAR BLKG
RV34: V SAW LEVEL
RV3: +V SAW GAIN
RV2: -V SAW GAIN
RV1: V SAW GAIN
RV39: -V SAW BIAS
RV38: +V SAW BIAS
RV33: BLKG BIAS
RV23: BLKG BIAS
RV27: CLIP LEVEL
RV29: PAIRING BALANCE
BUFF
4-3 V-V' bus-2 IN
4-2 V-V' bus-1 IN
4-1 V-V' bus-0 IN
10-1 POWER SENSE IN/OUT
10-2 POWER SENSE
11-1 POWER SENSE IN
11-2 POWER SENSE
Q104 2SB856
2-1 +9V REG Tr(E) OUT
2-3 +9V REG Tr(B) OUT
2-2 +9V REG Tr(C) IN
9-1 POWER SENSE
9-2 POWER SENSE IN/OUT
1-1 UNREG +9V OUT
1-2 UNREG +9V IN
TP17 TP16 TP18
1-4 UNREG GND
1-3 UNREG GND
6-4 V POSI-DC IN (G)
6-3 V POSI-DC IN
Q37 2SC2603
IC9 NJM2903D +9V REG
Q38 2SC2603
IC1 μPC339C POSITIONING PULSE GEN
IC4 TC4011BP(3/3)
IC2 TC4528BP(1/2) 1/2 PULSE GENERATOR
IC3 TC4030BP IC5 TC4011BP(3/4) TWIN KILLER PULSE GEN
IC2 TC4528BP(2/2) VARIABLE VD GEN
Q36 2SA1175 VAR VD BUFF
IC5 TC4011BP(4/4) INV
Q24 2SA1175 Q25 2SC2603 Q26 2SA1175 Q56 2SC2603 V PARABOLA GEN
Q27 2SC2603 Q28 2SC2603
Q29 2SC2603
IC11 TC4528BP 1/2 V PULSE GENERATOR
TP22 TP5 TP13 TP6
V SAW
VAR VD
RV24: +9V ADJ.
RV4: SLICE POSITION
RV5: 1/2V WIDTH
RV6: VARIABLE VD WIDTH
RV37: SLOPE CANCEL
RV35: 1/2V WIDTH
TP3 V SAW
TP4 -V SAW
TP2 +V SAW
TP24 -V BLKG
TP23 +V BLKG
TP5 1/2V PULSE
TP13 VAR VD
TP26 -V WIPE SIG
TP28 -V WIPE SIG
V

※1 C10 : 0.01 → 0.022
R43 : 390 → 750
R42 : 47K → 39K
R46 : 47K → 39K
SERIAL NO.
WEX-2000 (U/C, J) 10051～
WEX-2000P (AEP) 10061～
WEX-2000P (UK) 10021～
WEX-2000PM (BRZ) 10001～

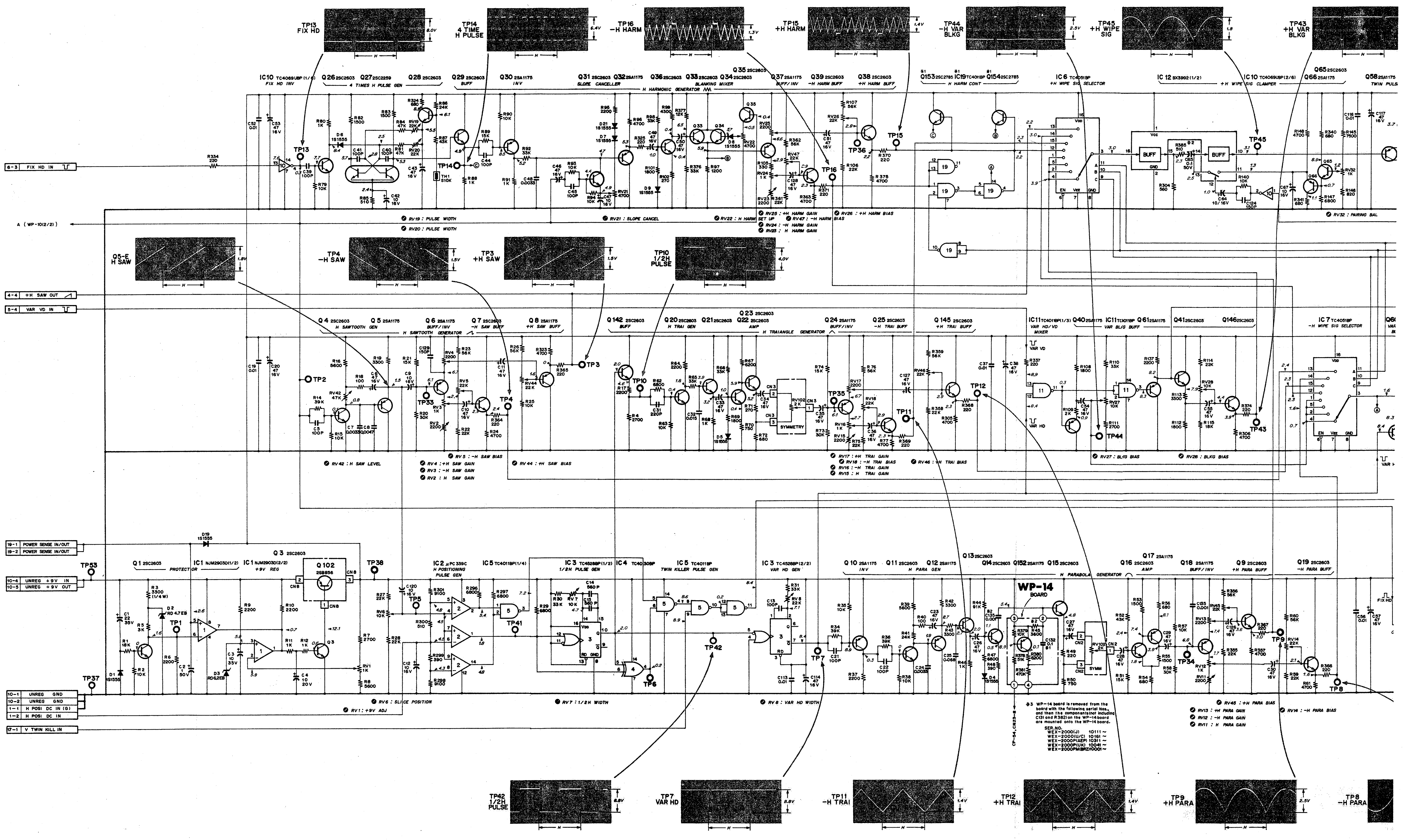
※2 C100(0.01/25V) is added.
SERIAL NO.
WEX-2000 (J) 10091～
WEX-2000 (U/C) 10121～
WEX-2000P (AEP) 10101～
WEX-2000P (UK) 10021～
WEX-2000PM (BRZ) 10001～

※4 The WP-13 board is removed from the board with the following serial Nos., and then all of the components on the WP-13 board are mounted onto the WP-9 board
SER. NO.
WEX-2000 (J) 10111～
WEX-2000 (U/C) 10161～
WEX-2000P (AEP) 10211～
WEX-2000P (UK) 10021～
WEX-2000PM (BRZ) 10001～

※C43
0.47/35V(NTSC, PAL-M)
0.68/35V(PAL)

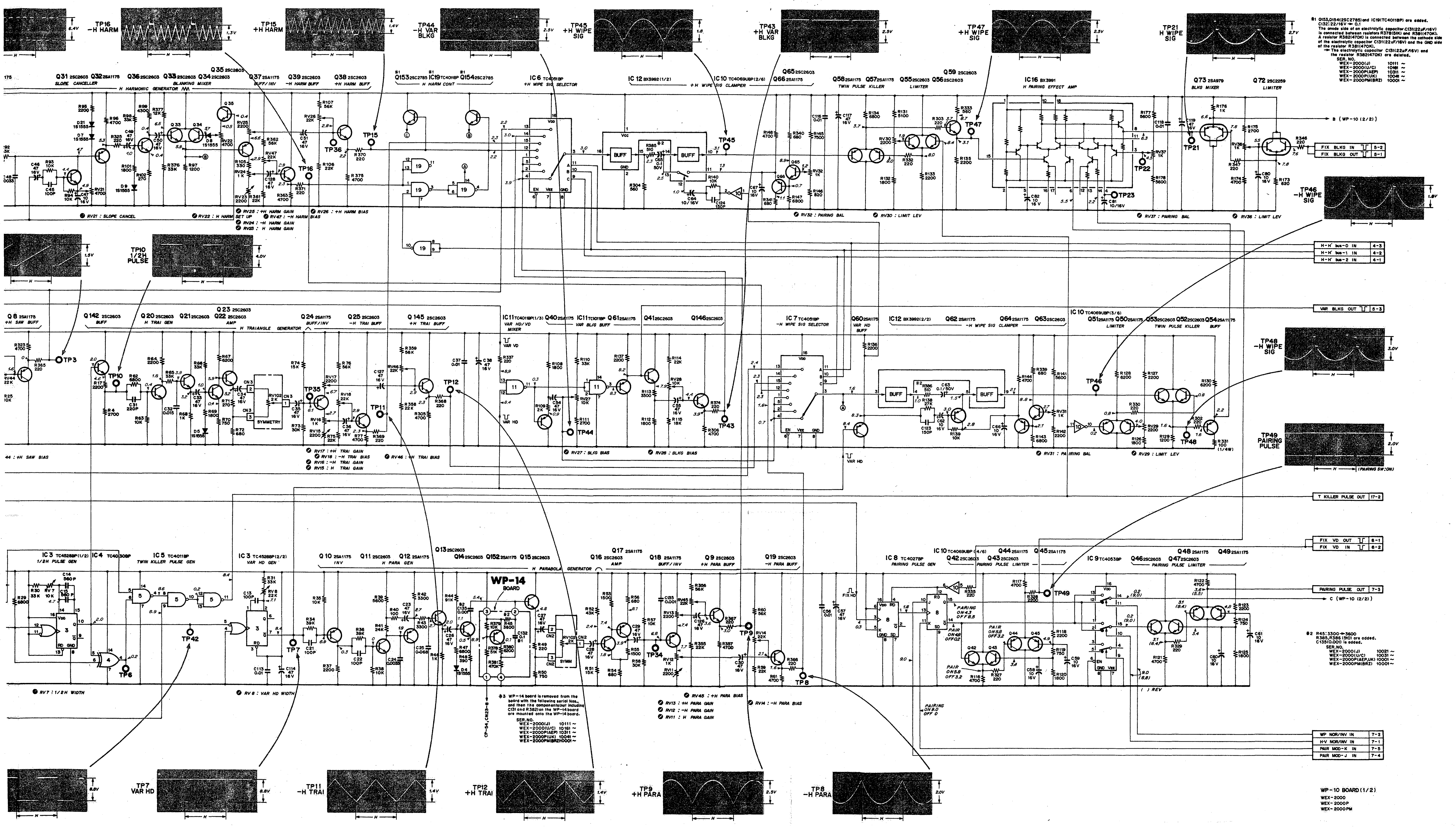

TP11
+V HARM
TP25
+V WIPE SIG
TP27
+V WIPE SIG
TP20
PAIRING PULSE
(PAIRING SW: ON)
TP7
+V TRAI
TP29
V WIPE OUT
Q23 2SC2603 -V HARM BUFF
Q22 2SC2603 +V HARM BUFF
IC6 TC4051BP +V WIPE SIG SELECTOR
IC8 BX3992(1/2) +V WIPE SIG CLAMPER
Q50 2SA1175 Q51 2SC2603
Q45 2SC2259 CLIPER
IC4 TC4011BP(1,2/3)
Q46 2SA979 TWIN PULSE KILLER
Q47 2SC2603 BUFF
IC10 BX3991 V PAIRING EFFECT AMP
Q41 2SC2259 LIMITER
Q40 2SA979 BLKG MIXER
PAIRING PULSE IN 5-2
FIX BLKG IN 5-4
V WIPE OUT 5-3
V WIPE OUT(G) 5-1
T KILLER PULSE IN 8-2
RV19: +V HARM BIAS
RV41: -V HARM BIAS
RV30: PAIRING BALANCE
RV28: CLIP LEVEL
RV26: PAIR BAL
RV25: LIMIT LEVEL
TP14
-V PARA
Q57 2SC2603 BLKG BUFF
IC7 TC4051BP -V WIPE SIG SELECTOR
IC8 BX3992(2/2) Q35 2SA1175 -V WIPE SIG CLAMPER
Q48 2SA1175 Q49 2SC2603
IC5 TC4011BP(2/4)
Q42 2SA979 CLIPER
Q43 2SC2259 TWIN PULSE KILLER
Q44 2SA1175 BUFF
Q52 2SC2603 +V TRAI BUFF
Q11 2SC2603 -V TRAI BUFF
Q10 2SA1175 BUF/INV
Q31 2SC2603 +V PARA BUFF
Q32 2SC2603 -V PARA BUFF
Q30 2SA1175 BUFF/INV
※3 R187(1K) is added.
R186(2200) is added.
C80(470P) is added.
C81(470P) is added.
SER. NO.
WEX-2000 (J) 10021~
WEX-2000 (U/C) 10031~
WEX-2000P (AEP) 10001~
WEX-2000P (UK) 10001~
WEX-2000PM (BRZ) 10001~
V PARA IN 7-3
RV23: BLKG BIAS
RV27: CLIP LEVEL
RV29: PAIRING BALANCE
RV40: +V TRAI BIAS
RV12: -V TRAI BIAS
RV11: +V TRAI GAIN
RV10: -V TRAI GAIN
RV9: V TRAI GAIN
RV32: +V PARA BIAS
RV42: -V PARA BIAS
RV22: +V PARA GAIN
RV21: -V PARA GAIN
RV20: V PARA GAIN
V TRAI IN 3-2
V PARA1 OUT 7-2
V PARA2 OUT 7-1
RV102 SYMMETRY 2K
IC3 TC4030BP IC5 TC4011BP(3/4) TWIN KILLER PULSE GEN
IC2 TC4528BP(2/2) VARIABLE VD GEN
Q36 2SA1175 VAR VD BUFF
IC5 TC4011BP(4/4) INV
Q24 2SA1175 Q25 2SC2603 Q26 2SA1175 Q56 2SC2603 Q27 2SC2603 Q28 2SC2603 Q29 2SC2603 V PARABOLA GEN
IC11 TC4528BP 1/2 V PULSE GENERATOR
Q6 2SC2603 Q55 2SC2603 Q7 2SC2603 Q8 2SC2603 Q9 2SC2603 V TRAIANGLE GENERATOR
TP15
+V PARA
V TRAI1 OUT 3-3
V TRAI2 OUT 3-1
VAR VD OUT 4-5
V TWIN KILL OUT 8-1
RV5: 1/2V WIDTH
RV6: VARIABLE VD WIDTH
RV37: SLOPE CANCEL
RV35: 1/2V WIDTH
RV36: SLOPE CANCEL
※C43 0.47/35V(NTSC, PAL-M) 0.68/35V(PAL)
※C18 0.47/35V(NTSC, PAL-M) 1/35V(PAL)
WP-9(N,P) BOARD
WEX-2000 (J,U/C)
WEX-2000P (AEP,UK)
WEX-2000PM(BRZ)
TP23
+V BLKG
TP5
1/2V PULSE
TP13
VAR VD
TP26
-V WIPE SIG
TP28
-V WIPE SIG
TP6
1/2V PULSE
TP8
-V TRAI

WP-10 BOARD(1/2)
WP-14 BOARD


TP13 FIX HD
TP14 4 TIME H PULSE
TP16 −H HARM
TP15 +H HARM
TP44 −H VAR BLKG
TP45 +H WIPE SIG
TP43 +H VAR BLKG
IC10 TC4069UBP(1/6) FIX HD INV
Q26 2SC2603 Q27 2SC2259 Q28 2SC2603 4 TIMES H PULSE GEN
Q29 2SC2603 BUFF
Q30 2SA1175 INV
Q31 2SC2603 Q32 2SA1175 SLOPE CANCELLER
Q36 2SC2603 Q33 2SC2603 Q34 2SC2603 Q35 2SC2603 BLANKING MIXER
H HARMONIC GENERATOR
Q37 2SA1175 BUFF/INV
Q39 2SC2603 −H HARM BUFF
Q38 2SC2603 +H HARM BUFF
Q153 2SC2785 IC19 TC4011BP Q154 2SC2785 H HARM CONT
IC6 TC4051BP +H WIPE SIG SELECTOR
IC12 BX3992(1/2)
IC10 TC4069UBP(2/6) +H WIPE SIG CLAMPER
Q65 2SC2603 Q66 2SA1175
Q58 2SA1175 TWIN PULS
6-3 FIX HD IN
A (WP-10(2/2))
RV19 : PULSE WIDTH
RV20 : PULSE WIDTH
RV21 : SLOPE CANCEL
RV22 : H HARM SET UP
RV25 : +H HARM GAIN
RV47 : −H HARM BIAS
RV24 : −H HARM GAIN
RV23 : H HARM GAIN
RV26 : +H HARM BIAS
RV32 : PAIRING BAL
Q5-E H SAW
TP4 −H SAW
TP3 +H SAW
TP10 1/2H PULSE
4-4 +H SAW OUT
5-4 VAR VD IN
Q4 2SC2603 H SAWTOOTH GEN
Q5 2SA1175
Q6 2SA1175 BUFF/INV H SAWTOOTH GENERATOR
Q7 2SC2603 −H SAW BUFF
Q8 2SA1175 +H SAW BUFF
Q142 2SC2603 BUFF
Q20 2SC2603 Q21 2SC2603 H TRAI GEN
Q23 2SC2603 Q22 2SC2603 AMP H TRIANGLE GENERATOR
Q24 2SA1175 BUFF/INV
Q25 2SC2603 −H TRAI BUFF
Q145 2SC2603 +H TRAI BUFF
IC11 TC4011BP(1/3) VAR HD/VD MIXER
Q40 2SA1175 IC11 TC4011BP Q61 2SA1175 VAR BLKG BUFF
Q41 2SC2603 Q146 2SC2603
IC7 TC4051BP −H WIPE SIG SELECTOR
VAR VD
VAR HD
SYMMETRY
RV42 : H SAW LEVEL
RV5 : −H SAW BIAS
RV4 : +H SAW GAIN
RV3 : −H SAW GAIN
RV2 : H SAW GAIN
RV44 : +H SAW BIAS
RV17 : +H TRAI GAIN
RV18 : −H TRAI BIAS
RV16 : −H TRAI GAIN
RV15 : H TRAI GAIN
RV46 : +H TRAI BIAS
RV27 : BLKG BIAS
RV28 : BLKG BIAS
19-1 POWER SENSE IN/OUT
19-2 POWER SENSE IN/OUT
10-4 UNREG +9V IN
10-5 UNREG +9V OUT
10-1 UNREG GND
10-2 UNREG GND
1-1 H POSI DC IN (G)
1-2 H POSI DC IN
17-1 V TWIN KILL IN
TP53
TP37
TP38
D19 1S1555
Q1 2SC2603 PROTECTOR
IC1 NJM2903D(1/2)
IC1 NJM2903D(2/2) +9V REG
Q3 2SC2603
Q102 2SB856
IC2 μPC339C H POSITIONING PULSE GEN
IC5 TC4011BP(1/4)
IC3 TC4528BP(1/2) 1/2H PULSE GEN
IC4 TC4030BP
IC5 TC4011BP TWIN KILLER PULSE GEN
IC3 TC4528BP(2/2) VAR HD GEN
Q10 2SA1175 INV
Q11 2SC2603 Q12 2SA1175 H PARA GEN
Q13 2SC2603 Q14 2SC2603 Q152 2SA1175 Q15 2SC2603 H PARABOLA GENERATOR
Q16 2SC2603 Q17 2SA1175 AMP
Q18 2SA1175 BUFF/INV
Q9 2SC2603 +H PARA BUFF
Q19 2SC2603 −H PARA BUFF
WP-14 BOARD
SYMM
CP-54, CN23-8
RV6 : SLICE POSITION
RV1 : +9V ADJ
RV7 : 1/2H WIDTH
RV8 : VAR HD WIDTH
RV45 : +H PARA BIAS
RV13 : +H PARA GAIN
RV12 : −H PARA GAIN
RV11 : H PARA GAIN
RV14 : −H PARA BIAS
TP42 1/2H PULSE
TP7 VAR HD
TP11 −H TRAI
TP12 +H TRAI
TP9 +H PARA
TP8 −H PARA

※3 WP−14 board is removed from the board with the following serial Nos., and then the components(not including C131 and R382) on the WP−14 board are mounted onto the WP−14 board.

SER.NO.
WEX−2000(J) 10111 ~
WEX−2000(U/C) 10161 ~
WEX−2000P(AEP) 10311 ~
WEX−2000P(UK) 10041 ~
WEX−2000PM(BRZ) 10001 ~


TP16 -H HARM
TP15 +H HARM
TP44 -H VAR BLKG
TP45 +H WIPE SIG
TP43 +H VAR BLKG
TP47 +H WIPE SIG
TP21 H WIPE SIG
TP46 -H WIPE SIG
TP10 1/2H PULSE
TP48 -H WIPE SIG
TP49 PAIRING PULSE
TP7 VAR HD
TP11 -H TRAI
TP12 +H TRAI
TP9 +H PARA
TP8 -H PARA
H HARMONIC GENERATOR
SLOPE CANCELLER
BLANKING MIXER
BUFF/INV
-H HARM BUFF
+H HARM BUFF
H HARM CONT
IC6 TC4051BP +H WIPE SIG SELECTOR
IC12 BX3992(1/2)
IC10 TC4069UBP(2/6) +H WIPE SIG CLAMPER
TWIN PULSE KILLER
LIMITER
IC16 BX3991 H PAIRING EFFECT AMP
Q73 2SA979 BLKG MIXER
Q72 2SC2259 LIMITER
B (WP-10 (2/2))
FIX BLKG IN 5-2
FIX BLKG OUT 5-1
H-H' bus-0 IN 4-3
H-H' bus-1 IN 4-2
H-H' bus-2 IN 4-1
VAR BLKG OUT 5-3
+H SAW BUFF
H TRAI GEN
H TRAIANGLE GENERATOR
-H TRAI BUFF
+H TRAI BUFF
SYMMETRY
IC11 TC4011BP(1/3) VAR HD/VD MIXER
VAR BLKG BUFF
IC7 TC4051BP -H WIPE SIG SELECTOR
VAR HD BUFF
IC12 BX3992(2/2)
-H WIPE SIG CLAMPER
IC10 TC4069UBP(3/6)
T KILLER PULSE OUT 17-2
FIX VD OUT 6-1
FIX VD IN 6-2
IC3 TC4528BP(1/2) 1/2H PULSE GEN
IC5 TC4011BP TWIN KILLER PULSE GEN
IC3 TC4528BP(2/2) VAR HD GEN
H PARA GEN
H PARABOLA GENERATOR
WP-14 BOARD
SYMM
+H PARA BUFF
-H PARA BUFF
IC8 TC4027BP PAIRING PULSE GEN
IC10 TC4069UBP(4/6) PAIRING PULSE LIMITER
IC9 TC4053BP
PAIRING PULSE OUT 7-3
C (WP-10 (2/2))
CP-54, CN23-8
WP NOR/INV IN 7-2
H·V NOR/INV IN 7-1
PAIR MOD-K IN 7-5
PAIR MOD-J IN 7-4
RV21 : SLOPE CANCEL
RV22 : H HARM SET UP
RV26 : +H HARM BIAS
RV25 : +H HARM GAIN
RV47 : -H HARM GAIN
RV24 : H HARM BIAS
RV23 : H HARM GAIN
RV32 : PAIRING BAL
RV30 : LIMIT LEV
RV37 : PAIRING BAL
RV36 : LIMIT LEV
RV44 : H SAW BIAS
RV17 : +H TRAI GAIN
RV18 : -H TRAI BIAS
RV16 : -H TRAI GAIN
RV15 : H TRAI GAIN
RV46 : H TRAI BIAS
RV27 : BLKG BIAS
RV28 : BLKG BIAS
RV31 : PAIRING BAL
RV29 : LIMIT LEV
RV7 : 1/2H WIDTH
RV8 : VAR HD WIDTH
RV45 : +H PARA BIAS
RV13 : +H PARA GAIN
RV12 : -H PARA GAIN
RV11 : H PARA GAIN
RV14 : -H PARA BIAS
( ) REV

※1 Q153,Q154(2SC2785) and IC19(TC4011BP) are added.
C132: 22/16V → 0.1
The anode side of an electrolytic capacitor C131(22μF/16V) is connected between resistors R378(51K) and R381(470K).
A resistor R382(470K) is connected between the cathode side of the electrolytic capacitor C131(22uF/16V) and the GND side of the resistor R381(470K).
→ The electrolytic capacitor C131(22μF/16V) and the resistor R382(470K) are deleted.

SER. NO.	
WEX-2000(J)	10111 ~
WEX-2000(U/C)	10161 ~
WEX-2000P(AEP)	10311 ~
WEX-2000P(UK)	10041 ~
WEX-2000PM(BRZ)	10001 ~

※2 R45: 3300 → 3600
R385,R386 (510) are added.
C135(0.001) is added.

SER. NO.	
WEX-2000(J)	10021 ~
WEX-2000(U/C)	10031 ~
WEX-2000P(AEP,UK)	10001 ~
WEX-2000PM(BRZ)	10001 ~

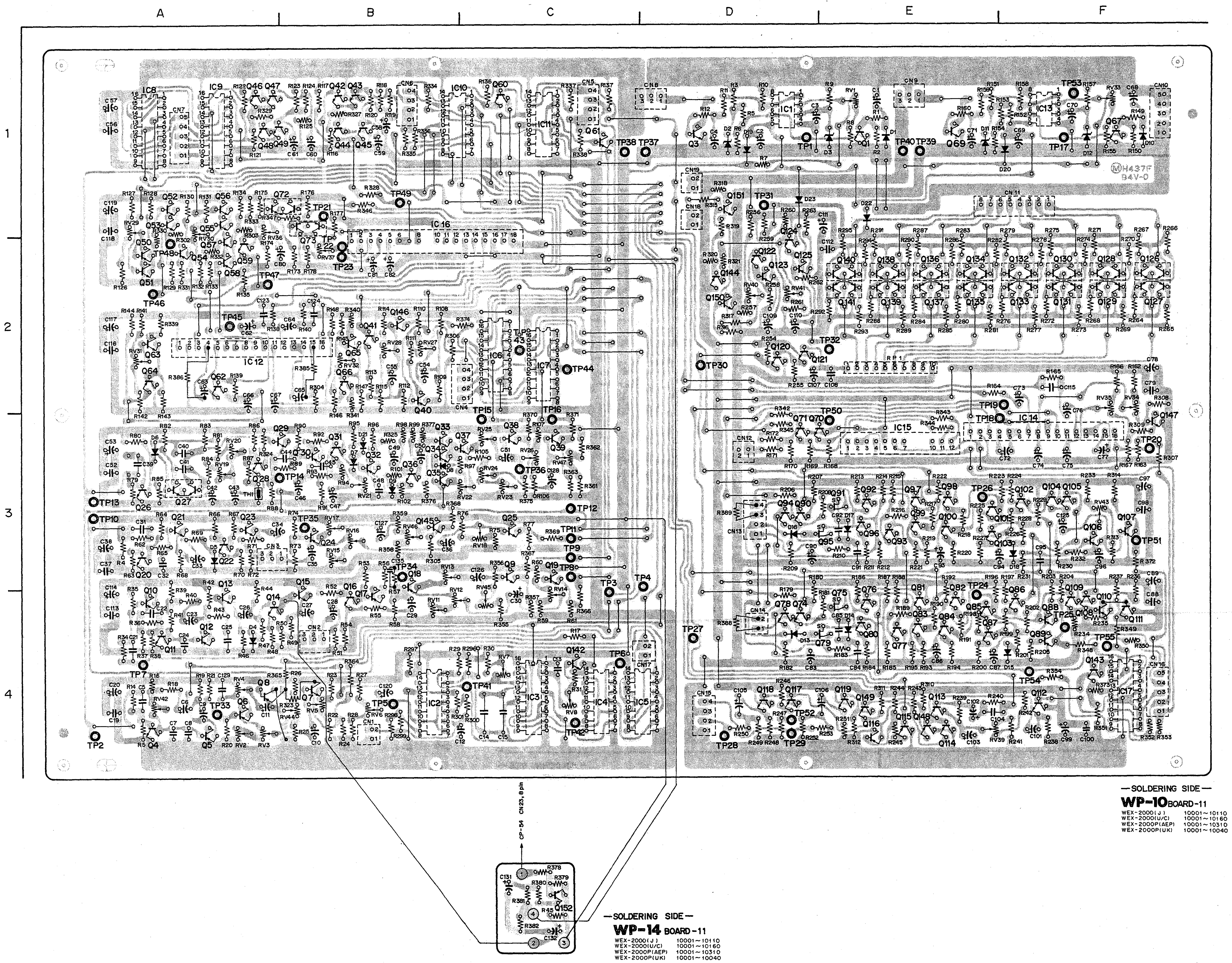
※3 WP-14 board is removed from the board with the following serial Nos., and then the components(not including C131 and R382) on the WP-14 board are mounted onto the WP-14 board.

SER. NO.	
WEX-2000(J)	10111 ~
WEX-2000(U/C)	10161 ~
WEX-2000P(AEP)	10311 ~
WEX-2000P(UK)	10041 ~
WEX-2000PM(BRZ)	10001 ~

WP-10 BOARD (1/2)
WEX-2000
WEX-2000P
WEX-2000PM

SER. NO. WEX-2000 (U/C) 10001 to 10160
WEX-2000P (AEP) 10001 to 10310
WEX-2000P (UK) 10001 to 10040

WP-10 BOARD
WP-14 BOARD



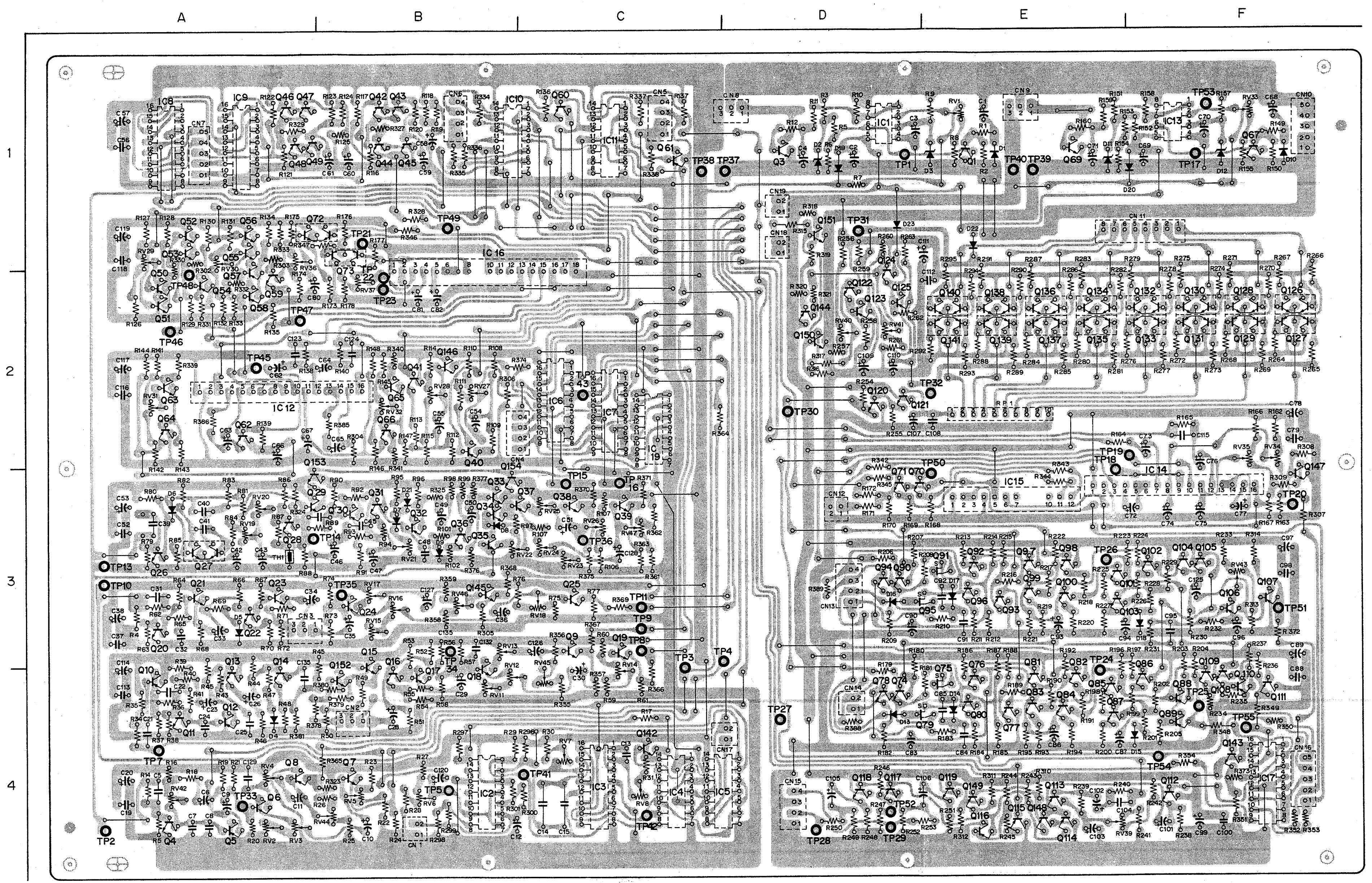
—SOLDERING SIDE—
WP-10 BOARD-11
WEX-2000(J) 10001～10110
WEX-2000(U/C) 10001～10160
WEX-2000P(AEP) 10001～10310
WEX-2000P(UK) 10001～10040

—SOLDERING SIDE—
WP-14 BOARD-11
WEX-2000(J) 10001～10110
WEX-2000(U/C) 10001～10160
WEX-2000P(AEP) 10001～10310
WEX-2000P(UK) 10001～10040

CN1	B-4
CN2	B-4
CN3	A-3
CN4	B-2
CN5	C-1
CN6	B-1
CN7	A-1
CN8	D-1
CN9	E-1
CN10	F-1
CN11	F-1
CN12	D-3
CN13	D-3
CN14	D-4
CN15	D-4
CN16	F-4
CN17	C-4
CN18	D-1
CN19	D-1
D1	E-1
D2	D-1
D3	E-1
D4	A-4
D5	A-3
D6	A-3
D7	B-3
D8	B-3
D9	B-3
D10	F-1
D11	E-1
D12	F-1
D13	D-4
D14	E-4
D15	F-4
D16	D-3
D17	E-3
D18	F-3
D19	D-1
D20	F-1
D21	B-3
D22	E-1
D23	D-1
IC1	D-1
IC2	B-4
IC3	C-4
IC4	C-4
IC5	C-4
IC6	C-2
IC7	C-2
IC8	A-1
IC9	A-1
IC10	B-1
IC11	C-1
IC12	A-2
IC13	F-1
IC14	F-3
IC15	E-3
IC16	B-1
IC17	F-4
Q1	E-1
Q3	D-1
Q4	A-4
Q5	A-4
Q6	A-4
Q7	B-4
Q8	A-4
Q9	C-3
Q10	A-4
Q11	A-4
Q12	A-4
Q13	A-4
Q14	A-4
Q15	B-4
Q16	B-4
Q17	B-4
Q18	B-3
Q19	C-3
Q20	A-3
Q21	A-3
Q22	A-3
Q23	A-3
Q24	B-3
Q25	C-3
Q26	A-3
Q27	A-3
Q28	A-3
Q29	B-3
Q30	B-3
Q31	B-3
Q32	B-3
Q33	B-3
Q34	B-3
Q35	B-3
Q36	B-3
Q37	C-3
Q38	C-3
Q39	C-3
Q40	B-2
Q41	B-2
Q42	B-1
Q43	B-1
Q44	B-1
Q45	B-1
Q46	A-1
Q47	A-1
Q48	A-1
Q49	A-1
Q50	A-2
Q51	A-2
Q52	A-1
Q53	A-1
Q54	A-2
Q55	A-1
Q56	A-1
Q57	A-2
Q58	A-2
Q59	A-2
Q60	C-1
Q61	C-1
Q62	A-2
Q63	A-2
Q64	A-2
Q65	B-2
Q66	B-2
Q67	F-1
Q69	E-1
Q70	D-3
Q71	D-3
Q72	B-1
Q73	B-1
Q74	D-4
Q75	E-4
Q76	E-4
Q77	E-4
Q78	D-4
Q79	D-4
Q80	E-4
Q81	E-4
Q82	E-4
Q83	E-4
Q84	E-4
Q85	E-4
Q86	F-4
Q87	E-4
Q88	F-4
Q89	F-4
Q90	D-3
Q91	E-3
Q92	E-3
Q93	E-3
Q94	D-3
Q95	D-3
Q96	E-3
Q97	E-3
Q98	E-3
Q99	E-3
Q100	E-3
Q101	E-3
Q102	F-3
Q103	E-3
Q104	F-3
Q105	F-3
Q106	F-3
Q107	F-3
Q108	F-4
Q109	F-4
Q110	F-4
Q111	F-4
Q112	F-4
Q113	E-4
Q114	E-4
Q115	E-4
Q116	E-4
Q117	D-4
Q118	D-4
Q119	E-4
Q120	D-2
Q121	D-2
Q122	D-2
Q123	D-2
Q124	D-2
Q125	D-2
Q126	F-2
Q127	F-2
Q128	F-2
Q129	F-2
Q130	F-2
Q131	F-2
Q132	F-2
Q133	F-2
Q134	E-2
Q135	E-2
Q136	E-2
Q137	E-2
Q138	E-2
Q139	E-2
Q140	E-2
Q141	E-2
Q142	C-4
Q143	F-4
Q144	D-2
Q145	B-3
Q146	B-2
Q147	F-3
Q148	E-4
Q149	E-4
Q150	D-2
Q151	D-1
Q152	C-4
RP1	E-2
RV1	E-1
RV2	A-4
RV3	A-4
RV4	A-4
RV5	B-4
RV6	B-4
RV7	C-4
RV8	C-4
RV11	B-4
RV12	B-4
RV13	B-3
RV14	C-4
RV15	B-3
RV16	B-3
RV17	B-3
RV18	C-3
RV19	A-3
RV20	A-3
RV21	B-3
RV22	C-3
RV23	C-3
RV24	C-3
RV25	C-3
RV26	C-3
RV27	B-2
RV28	B-2
RV29	A-1
RV30	A-1
RV31	A-2
RV32	B-2
RV33	F-1
RV34	F-2
RV35	F-2
RV36	A-1
RV37	B-2
RV39	E-4
RV40	D-2
RV41	D-2
RV42	A-4
RV43	F-3
RV44	B-4
RV45	C-4
RV46	B-3
RV47	C-3
TH1	A-3
TP1	D-1
TP2	A-4
TP3	C-3
TP4	D-3
TP5	B-4
TP7	A-4
TP8	C-3
TP9	C-3
TP10	A-3
TP11	C-3
TP12	C-3
TP13	A-3
TP14	B-3
TP15	C-3
TP16	C-3
TP17	F-1
TP18	E-3
TP19	F-2
TP20	F-3
TP21	B-1
TP22	B-2
TP23	B-2
TP24	E-4
TP25	F-4
TP26	E-3
TP27	D-4
TP28	D-4
TP29	D-4
TP30	D-2
TP31	D-1
TP32	E-2
TP33	A-4
TP34	B-3
TP35	B-3
TP36	C-3
TP37	D-1
TP38	C-1
TP39	E-1
TP40	E-1
TP41	C-4
TP42	C-4
TP43	C-2
TP44	C-2
TP45	A-2
TP46	A-2
TP47	A-2
TP48	A-2
TP49	B-1
TP50	E-3
TP51	F-3
TP52	D-4
TP53	F-1
TP54	F-4
TP55	F-4

SER. NO.	WEX-2000 (U/C)	10161~
	WEX-2000P (AEP)	10311~
	WEX-2000P (UK)	10041~
	WEX-2000PM (BRZ)	10001~

WP-10 BOARD



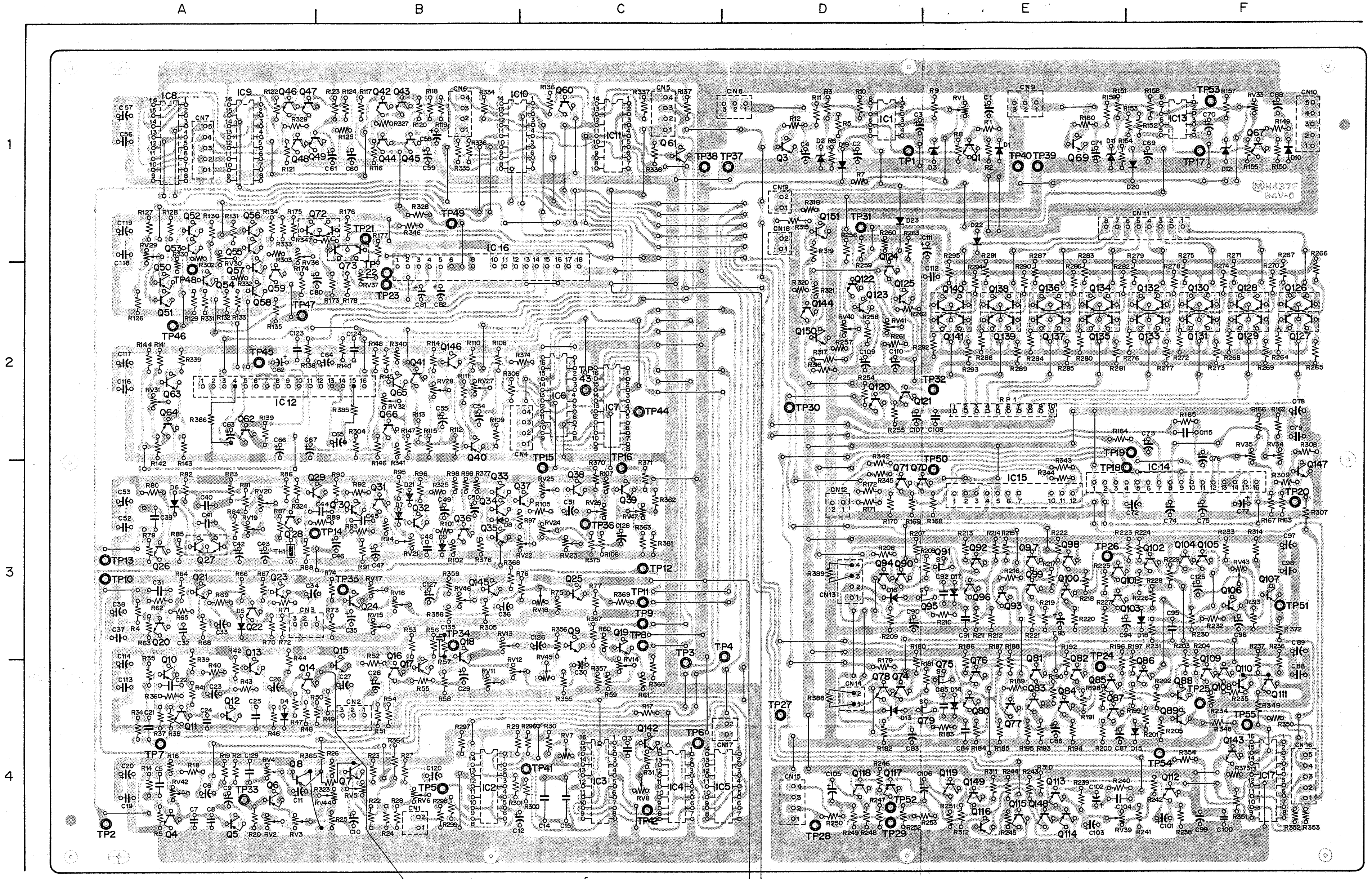
—SOLDERING SIDE—

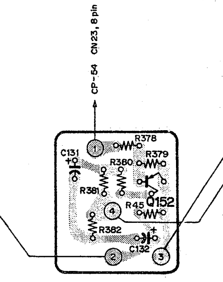
WP-10 BOARD-12
WEX-2000(J) 10111~
WEX-2000(U/C) 10161~
WEX-2000P(AEP) 10311~
WEX-2000P(UK) 10041~
WEX-2000PM(BRZ) 10001~

CN1	B-4
CN2	B-4
CN3	A-3
CN4	B-2
CN5	C-1
CN6	B-1
CN7	A-1
CN8	D-1
CN9	E-1
CN10	F-1
CN11	F-1
CN12	D-3
CN13	D-3
CN14	D-4
CN15	D-4
CN16	F-4
CN17	C-4
CN18	D-1
CN19	D-1
D1	E-1
D2	D-1
D3	E-1
D4	A-4
D5	A-3
D6	A-3
D7	B-3
D8	B-3
D9	B-3
D10	F-1
D11	E-1
D12	F-1
D13	D-4
D14	E-4
D15	F-4
D16	D-3
D17	E-3
D18	F-3
D19	D-1
D20	F-1
D21	B-3
D22	E-1
D23	D-1
IC1	D-1
IC2	B-4
IC3	C-4
IC4	C-4
IC5	C-4
IC6	C-2
IC7	C-2
IC8	A-1
IC9	A-1
IC10	B-1
IC11	C-1
IC12	A-2
IC13	F-1
IC14	F-3
IC15	E-3
IC16	B-1
IC17	F-4
Q1	E-1
Q3	D-1
Q4	A-4
Q5	A-4
Q6	A-4
Q7	B-4
Q8	A-4
Q9	C-3
Q10	A-4
Q11	A-4
Q12	A-4
Q13	A-4
Q14	A-4
Q15	B-4
Q16	B-4
Q17	B-4
Q18	B-4
Q19	C-3
Q20	A-3
Q21	A-3
Q22	A-3
Q23	A-3
Q24	B-3
Q25	C-3
Q26	A-3
Q27	A-3
Q28	A-3
Q29	B-3
Q30	B-3
Q31	B-3
Q32	B-3
Q33	B-3
Q34	B-3
Q35	B-3
Q36	B-3
Q37	C-3
Q38	C-3
Q39	C-3
Q40	B-2
Q41	B-2
Q42	B-1
Q43	B-1
Q44	B-1
Q45	B-1
Q46	A-1
Q47	A-1
Q48	A-1
Q49	A-1
Q50	A-2
Q51	A-2
Q52	A-1
Q53	A-1
Q54	A-2
Q55	A-1
Q56	A-1
Q57	A-2
Q58	A-2
Q59	A-2
Q60	C-1
Q61	C-1
Q62	A-2
Q63	A-2
Q64	A-2
Q65	B-2
Q66	B-2
Q67	F-1
Q69	E-1
Q70	D-3
Q71	D-3
Q72	B-1
Q73	B-1
Q74	D-4
Q75	E-4
Q76	E-4
Q77	E-4
Q78	D-4
Q79	D-4
Q80	E-4
Q81	E-4
Q82	E-4
Q83	E-4
Q84	E-4
Q85	E-4
Q86	F-4
Q87	E-4
Q88	F-4
Q89	F-4
Q90	D-3
Q91	E-3
Q92	E-3
Q93	E-3
Q94	D-3
Q95	D-3
Q96	E-3
Q97	E-3
Q98	E-3
Q99	E-3
Q100	E-3
Q101	E-3
Q102	F-3
Q103	E-3
Q104	F-3
Q105	F-3
Q106	F-3
Q107	F-3
Q108	F-4
Q109	F-4
Q110	F-4
Q111	F-4
Q112	F-4
Q113	E-4
Q114	E-4
Q115	E-4
Q116	E-4
Q117	D-4
Q118	D-4
Q119	E-4
Q120	D-2
Q121	D-2
Q122	D-2
Q123	D-2
Q124	D-2
Q125	D-2
Q126	F-2
Q127	F-2
Q128	F-2
Q129	F-2
Q130	F-2
Q131	F-2
Q132	F-2
Q133	F-2
Q134	E-2
Q135	E-2
Q136	E-2
Q137	E-2
Q138	E-2
Q139	E-2
Q140	E-2
Q141	E-2
Q142	C-4
Q143	F-4
Q144	D-2
Q145	B-3
Q146	B-2
Q147	F-3
Q148	E-4
Q149	E-4
Q150	D-2
Q151	D-1
Q152	B-4
RP1	E-2
RV1	E-1
RV2	A-4
RV3	A-4
RV4	A-4
RV5	B-4
RV6	B-4
RV7	C-4
RV8	C-4
RV11	B-4
RV12	B-4
RV13	B-3
RV14	C-4
RV15	B-3
RV16	B-3
RV17	B-3
RV18	C-3
RV19	A-3
RV20	A-3
RV21	B-3
RV22	C-3
RV23	C-3
RV24	C-3
RV25	C-3
RV26	C-3
RV27	B-2
RV28	B-2
RV29	A-1
RV30	A-1
RV31	A-2
RV32	B-2
RV33	F-1
RV34	F-2
RV35	F-2
RV36	A-1
RV37	B-2
RV39	E-4
RV40	D-2
RV41	D-2
RV42	A-4
RV43	F-3
RV44	B-4
RV45	C-4
RV46	B-3
RV47	C-3
TH1	A-3
TP1	D-1
TP2	A-4
TP3	C-3
TP4	D-3
TP5	B-4
TP7	A-4
TP8	C-3
TP9	C-3
TP10	A-3
TP11	C-3
TP13	A-3
TP14	B-3
TP15	C-3
TP16	C-3
TP17	F-1
TP18	E-3
TP19	F-2
TP20	F-3
TP21	B-1
TP22	B-2
TP23	B-2
TP24	E-4
TP25	F-4
TP26	E-3
TP27	D-4
TP28	D-4
TP29	D-4
TP30	D-2
TP31	D-1
TP32	E-2
TP33	A-4
TP34	B-3
TP35	B-3
TP36	C-3
TP37	D-1
TP38	C-1
TP39	E-1
TP40	E-1
TP41	C-4
TP42	C-4
TP43	C-2
TP45	A-2
TP46	A-2
TP47	A-2
TP48	A-2
TP49	B-1
TP50	E-3
TP51	F-3
TP52	D-4
TP53	F-1
TP54	F-4
TP55	F-4

SER. NO.		
WEX-2000 (U/C)	10001 to 10160	
WEX-2000P (AEP)	10001 to 10310	
WEX-2000P (UK)	10001 to 10040	

WP-10 BOARD





—SOLDERING SIDE—

WP-10 BOARD-11

WEX-2000(J) 10001～10110
WEX-2000(U/C) 10001～10160
WEX-2000P(AEP) 10001～10310
WEX-2000P(UK) 10001～10040

—SOLDERING SIDE—

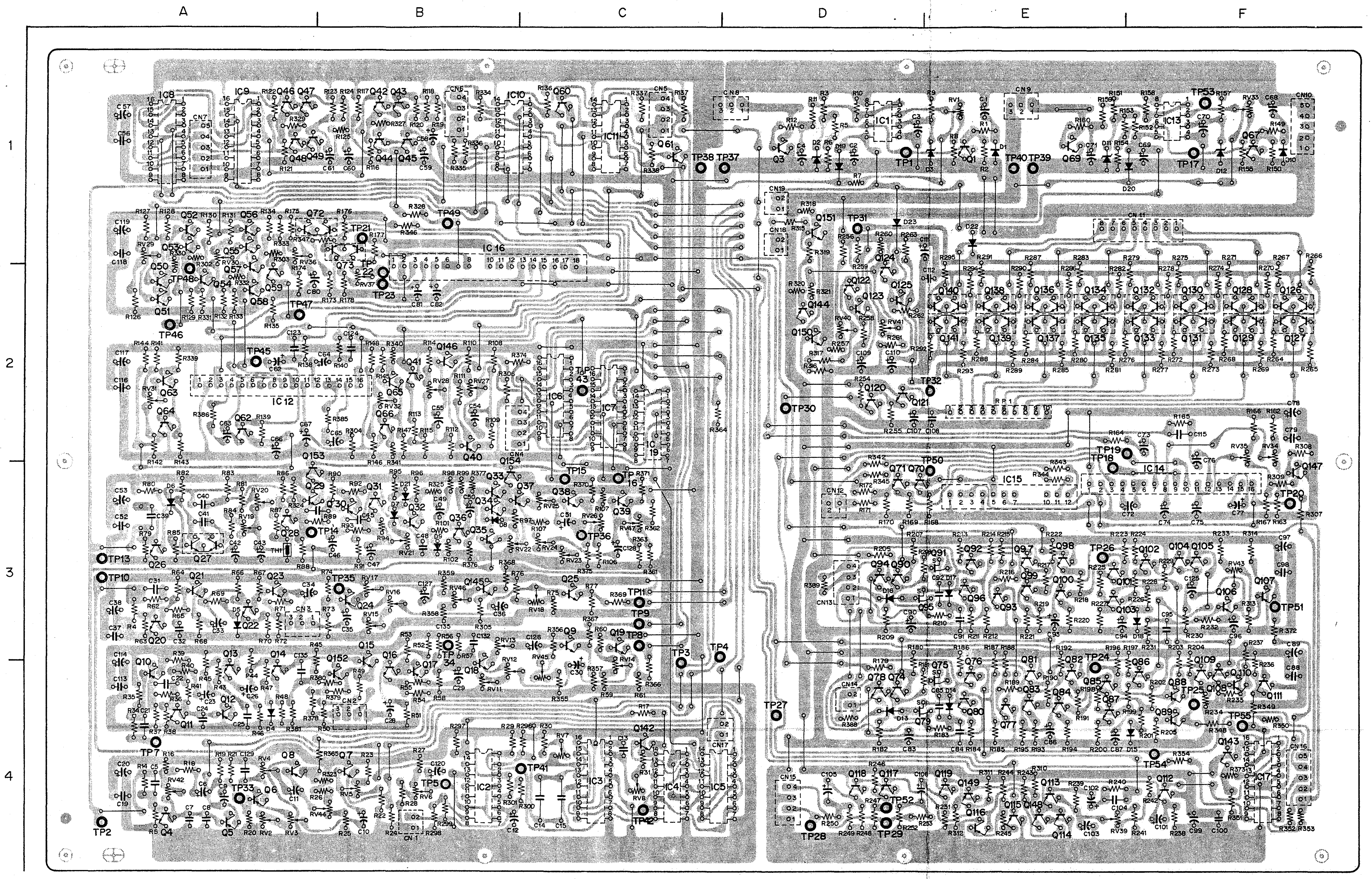
WP-14 BOARD-11

WEX-2000(J) 10001～10110
WEX-2000(U/C) 10001～10160
WEX-2000P(AEP) 10001～10310
WEX-2000P(UK) 10001～10040

CN1	B-4
CN2	B-4
CN3	A-3
CN4	B-2
CN5	C-1
CN6	B-1
CN7	A-1
CN8	D-1
CN9	E-1
CN10	F-1
CN11	F-1
CN12	D-3
CN13	D-3
CN14	D-4
CN15	D-4
CN16	F-4
CN17	C-4
CN18	D-1
CN19	D-1
D1	E-1
D2	D-1
D3	E-1
D4	A-4
D5	A-3
D6	A-3
D7	B-3
D8	B-3
D9	B-3
D10	F-1
D11	E-1
D12	F-1
D13	D-4
D14	E-4
D15	F-4
D16	D-3
D17	E-3
D18	F-3
D19	D-1
D20	F-1
D21	B-3
D22	E-1
D23	D-1
IC1	D-1
IC2	B-4
IC3	C-4
IC4	C-4
IC5	C-4
IC6	C-2
IC7	C-2
IC8	A-1
IC9	A-1
IC10	B-1
IC11	C-1
IC12	A-2
IC13	F-1
IC14	F-3
IC15	E-3
IC16	B-1
IC17	F-4
Q1	E-1
Q3	D-1
Q4	A-4
Q5	A-4
Q6	A-4
Q7	B-4
Q8	A-4
Q9	C-3
Q10	A-4
Q11	A-4
Q12	A-4
Q13	A-4
Q14	A-4
Q15	B-4
Q16	B-4
Q17	B-4
Q18	B-3
Q19	C-3
Q20	A-3
Q21	A-3
Q22	A-3
Q23	A-3
Q24	B-3
Q25	C-3
Q26	A-3
Q27	A-3
Q28	A-3
Q29	B-3
Q30	B-3
Q31	B-3
Q32	B-3
Q33	B-3
Q34	B-3
Q35	B-3
Q36	B-3
Q37	C-3
Q38	C-3
Q39	C-3
Q40	B-2
Q41	B-2
Q42	B-1
Q43	B-1
Q44	B-1
Q45	B-1
Q46	A-1
Q47	A-1
Q48	A-1
Q49	A-1
Q50	A-2
Q51	A-2
Q52	A-1
Q53	A-1
Q54	A-2
Q55	A-1
Q56	A-1
Q57	A-2
Q58	A-2
Q59	A-2
Q60	C-1
Q61	C-1
Q62	A-2
Q63	A-2
Q64	A-2
Q65	B-2
Q66	B-2
Q67	F-1
Q69	E-1
Q70	D-3
Q71	D-3
Q72	B-1
Q73	B-1
Q74	D-4
Q75	E-4
Q76	E-4
Q77	E-4
Q78	D-4
Q79	D-4
Q80	E-4
Q81	E-4
Q82	E-4
Q83	E-4
Q84	E-4
Q85	E-4
Q86	F-4
Q87	E-4
Q88	F-4
Q89	F-4
Q90	D-3
Q91	E-3
Q92	E-3
Q93	E-3
Q94	D-3
Q95	D-3
Q96	E-3
Q97	E-3
Q98	E-3
Q99	E-3
Q100	E-3
Q101	E-3
Q102	F-3
Q103	E-3
Q104	F-3
Q105	F-3
Q106	F-3
Q107	F-3
Q108	F-4
Q109	F-4
Q110	F-4
Q111	F-4
Q112	F-4
Q113	E-4
Q114	E-4
Q115	E-4
Q116	E-4
Q117	D-4
Q118	D-4
Q119	E-4
Q120	D-2
Q121	D-2
Q122	D-2
Q123	D-2
Q124	D-2
Q125	D-2
Q126	F-2
Q127	F-2
Q128	F-2
Q129	F-2
Q130	F-2
Q131	F-2
Q132	F-2
Q133	F-2
Q134	E-2
Q135	E-2
Q136	E-2
Q137	E-2
Q138	E-2
Q139	E-2
Q140	E-2
Q141	E-2
Q142	C-4
Q143	F-4
Q144	D-2
Q145	B-3
Q146	B-2
Q147	F-3
Q148	E-4
Q149	E-4
Q150	D-2
Q151	D-1
Q152	C-4
RP1	E-2
RV1	E-1
RV2	A-4
RV3	A-4
RV4	A-4
RV5	B-4
RV6	B-4
RV7	C-4
RV8	C-4
RV11	B-4
RV12	B-4
RV13	B-3
RV14	C-4
RV15	B-3
RV16	B-3
RV17	B-3
RV18	C-3
RV19	A-3
RV20	A-3
RV21	B-3
RV22	C-3
RV23	C-3
RV24	C-3
RV25	C-3
RV26	C-3
RV27	B-2
RV28	B-2
RV29	A-1
RV30	A-1
RV31	A-2
RV32	B-2
RV33	F-1
RV34	F-2
RV35	F-2
RV36	A-1
RV37	B-2
RV39	E-4
RV40	D-2
RV41	D-2
RV42	A-4
RV43	F-3
RV44	B-4
RV45	C-4
RV46	B-3
RV47	C-3
TH1	A-3
TP1	D-1
TP2	A-4
TP3	C-3
TP4	D-3
TP5	B-4
TP7	A-4
TP8	C-3
TP9	C-3
TP10	A-3
TP11	C-3
TP12	C-3
TP13	A-3
TP14	B-3
TP15	C-3
TP16	C-3
TP17	F-1
TP18	E-3
TP19	F-2
TP20	F-3
TP21	B-1
TP22	B-2
TP23	B-2
TP24	E-4
TP25	F-4
TP26	E-3
TP27	D-4
TP28	D-4
TP29	D-4
TP30	D-2
TP31	D-1
TP32	E-2
TP33	A-4
TP34	B-3
TP35	B-3
TP36	C-3
TP37	D-1
TP38	C-1
TP39	E-1
TP40	E-1
TP41	C-4
TP42	C-4
TP43	C-2
TP44	C-2
TP45	A-2
TP46	A-2
TP47	A-2
TP48	A-2
TP49	B-1
TP50	E-3
TP51	F-3
TP52	D-4
TP53	F-1
TP54	F-4
TP55	F-4

SER. NO.		
	WEX-2000 (U/C)	10161~
	WEX-2000P (AEP)	10311~
	WEX-2000P (UK)	10041~
	WEX-2000PM (BRZ)	10001~

WP-10 BOARD



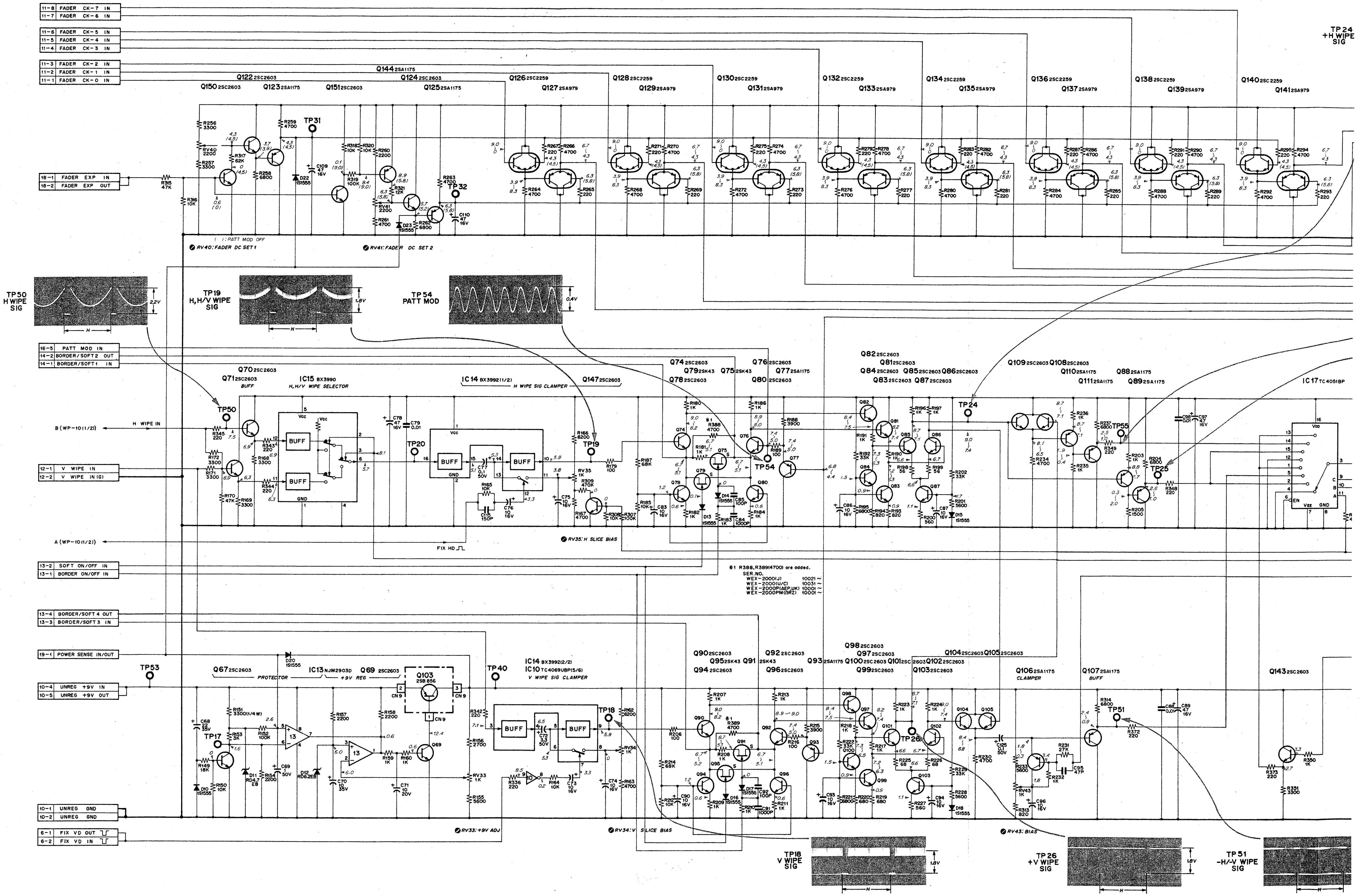
—SOLDERING SIDE—

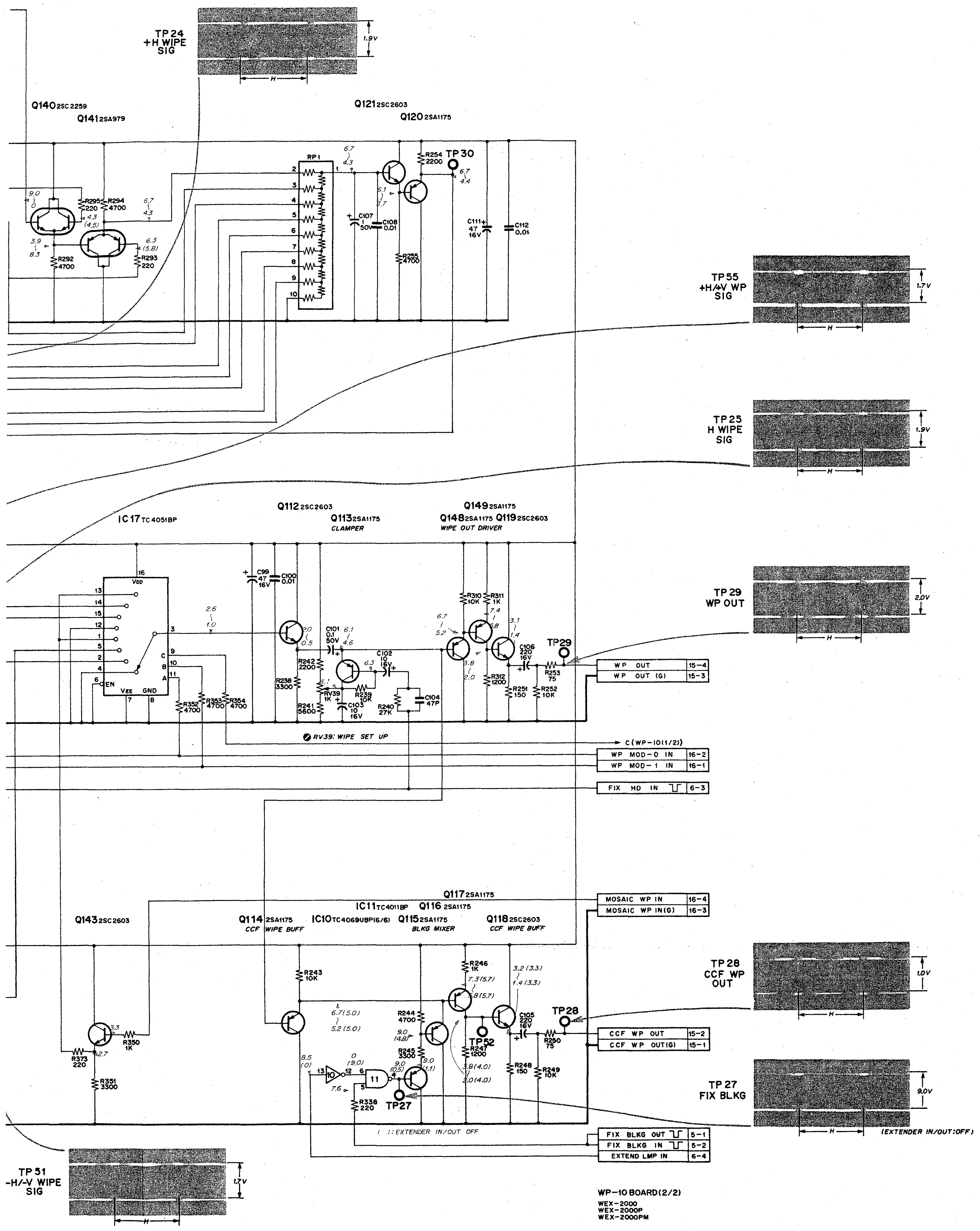
WP-10 BOARD-12

WEX-2000(J) 10111~
WEX-2000(U/C) 10161~
WEX-2000P(AEP) 10311~
WEX-2000P(UK) 10041~
WEX-2000PM(BRZ) 10001~

CN1	B-4
CN2	B-4
CN3	A-3
CN4	B-2
CN5	C-1
CN6	B-1
CN7	A-1
CN8	D-1
CN9	E-1
CN10	F-1
CN11	F-1
CN12	D-3
CN13	D-3
CN14	D-4
CN15	D-4
CN16	F-4
CN17	C-4
CN18	D-1
CN19	D-1
D1	E-1
D2	D-1
D3	E-1
D4	A-4
D5	A-3
D6	A-3
D7	B-3
D8	B-3
D9	B-3
D10	F-1
D11	E-1
D12	F-1
D13	D-4
D14	E-4
D15	F-4
D16	D-3
D17	E-3
D18	F-3
D19	D-1
D20	F-1
D21	B-3
D22	E-1
D23	D-1
IC1	D-1
IC2	B-4
IC3	C-4
IC4	C-4
IC5	C-4
IC6	C-2
IC7	C-2
IC8	A-1
IC9	A-1
IC10	B-1
IC11	C-1
IC12	A-2
IC13	F-1
IC14	F-3
IC15	E-3
IC16	B-1
IC17	F-4
Q1	E-1
Q3	D-1
Q4	A-4
Q5	A-4
Q6	A-4
Q7	B-4
Q8	A-4
Q9	C-3
Q10	A-4
Q11	A-4
Q12	A-4
Q13	A-4
Q14	A-4
Q15	B-4
Q16	B-4
Q17	B-4
Q18	B-4
Q19	C-3
Q20	A-3
Q21	A-3
Q22	A-3
Q23	A-3
Q24	B-3
Q25	C-3
Q26	A-3
Q27	A-3
Q28	A-3
Q29	B-3
Q30	B-3
Q31	B-3
Q32	B-3
Q33	B-3
Q34	B-3
Q35	B-3
Q36	B-3
Q37	C-3
Q38	C-3
Q39	C-3
Q40	B-2
Q41	B-2
Q42	B-1
Q43	B-1
Q44	B-1
Q45	B-1
Q46	A-1
Q47	A-1
Q48	A-1
Q49	A-1
Q50	A-2
Q51	A-2
Q52	A-1
Q53	A-1
Q54	A-2
Q55	A-1
Q56	A-1
Q57	A-2
Q58	A-2
Q59	A-2
Q60	C-1
Q61	C-1
Q62	A-2
Q63	A-2
Q64	A-2
Q65	B-2
Q66	B-2
Q67	F-1
Q69	E-1
Q70	D-3
Q71	D-3
Q72	B-1
Q73	B-1
Q74	D-4
Q75	E-4
Q76	E-4
Q77	E-4
Q78	D-4
Q79	D-4
Q80	E-4
Q81	E-4
Q82	E-4
Q83	E-4
Q84	E-4
Q85	E-4
Q86	F-4
Q87	E-4
Q88	F-4
Q89	F-4
Q90	D-3
Q91	E-3
Q92	E-3
Q93	E-3
Q94	D-3
Q95	D-3
Q96	E-3
Q97	E-3
Q98	E-3
Q99	E-3
Q100	E-3
Q101	E-3
Q102	F-3
Q103	E-3
Q104	F-3
Q105	F-3
Q106	F-3
Q107	F-3
Q108	F-4
Q109	F-4
Q110	F-4
Q111	F-4
Q112	F-4
Q113	E-4
Q114	E-4
Q115	E-4
Q116	E-4
Q117	D-4
Q118	D-4
Q119	E-4
Q120	D-2
Q121	D-2
Q122	D-2
Q123	D-2
Q124	D-2
Q125	D-2
Q126	F-2
Q127	F-2
Q128	F-2
Q129	F-2
Q130	F-2
Q131	F-2
Q132	F-2
Q133	F-2
Q134	E-2
Q135	E-2
Q136	E-2
Q137	E-2
Q138	E-2
Q139	E-2
Q140	E-2
Q141	E-2
Q142	C-4
Q143	F-4
Q144	D-2
Q145	B-3
Q146	B-2
Q147	F-3
Q148	E-4
Q149	E-4
Q150	D-2
Q151	D-1
Q152	B-4
RP1	E-2
RV1	E-1
RV2	A-4
RV3	A-4
RV4	A-4
RV5	B-4
RV6	B-4
RV7	C-4
RV8	C-4
RV11	B-4
RV12	B-4
RV13	B-3
RV14	C-4
RV15	B-3
RV16	B-3
RV17	B-3
RV18	C-3
RV19	A-3
RV20	A-3
RV21	B-3
RV22	C-3
RV23	C-3
RV24	C-3
RV25	C-3
RV26	C-3
RV27	B-2
RV28	B-2
RV29	A-1
RV30	A-1
RV31	A-2
RV32	B-2
RV33	F-1
RV34	F-2
RV35	F-2
RV36	A-1
RV37	B-2
RV39	E-4
RV40	D-2
RV41	D-2
RV42	A-4
RV43	F-3
RV44	B-4
RV45	C-4
RV46	B-3
RV47	C-3
TH1	A-3
TP1	D-1
TP2	A-4
TP3	C-3
TP4	D-3
TP5	B-4
TP7	A-4
TP8	C-3
TP9	C-3
TP10	A-3
TP11	C-3
TP13	A-3
TP14	B-3
TP15	C-3
TP16	C-3
TP17	F-1
TP18	E-3
TP19	F-2
TP20	F-3
TP21	B-1
TP22	B-2
TP23	B-2
TP24	E-4
TP25	F-4
TP26	E-3
TP27	D-4
TP28	D-4
TP29	D-4
TP30	D-2
TP31	D-1
TP32	E-2
TP33	A-4
TP34	B-3
TP35	B-3
TP36	C-3
TP37	D-1
TP38	C-1
TP39	E-1
TP40	E-1
TP41	C-4
TP42	C-4
TP43	C-2
TP45	A-2
TP46	A-2
TP47	A-2
TP48	A-2
TP49	B-1
TP50	E-3
TP51	F-3
TP52	D-4
TP53	F-1
TP54	F-4
TP55	F-4

WP-10 BOARD (2/2)

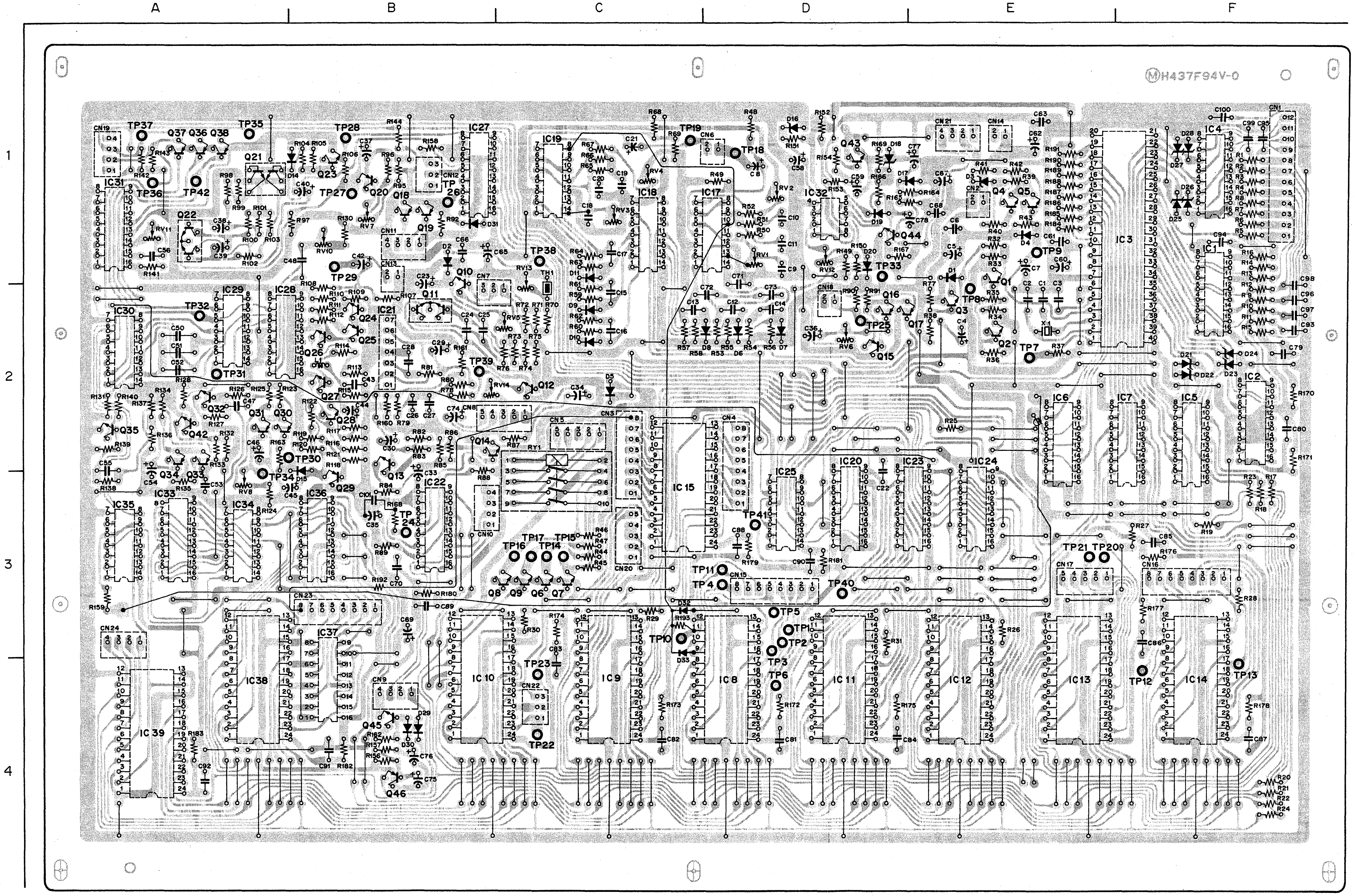

11-8 FADER CK-7 IN
11-7 FADER CK-6 IN
11-6 FADER CK-5 IN
11-5 FADER CK-4 IN
11-4 FADER CK-3 IN
11-3 FADER CK-2 IN
11-2 FADER CK-1 IN
11-1 FADER CK-0 IN
18-1 FADER EXP IN
18-2 FADER EXP OUT
16-5 PATT MOD IN
14-2 BORDER/SOFT 2 OUT
14-1 BORDER/SOFT 1 IN
B (WP-10(1/2))
H WIPE IN
12-1 V WIPE IN
12-2 V WIPE IN (G)
A (WP-10(1/2))
13-2 SOFT ON/OFF IN
13-1 BORDER ON/OFF IN
13-4 BORDER/SOFT 4 OUT
13-3 BORDER/SOFT 3 IN
19-1 POWER SENSE IN/OUT
10-4 UNREG +9V IN
10-5 UNREG +9V OUT
10-1 UNREG GND
10-2 UNREG GND
6-1 FIX VD OUT
6-2 FIX VD IN
TP50 H WIPE SIG
TP19 H,H/V WIPE SIG
TP54 PATT MOD
TP24 +H WIPE SIG
TP18 V WIPE SIG
TP26 +V WIPE SIG
TP51 -H/-V WIPE SIG
TP31
TP32
TP20
TP55
TP25
TP53
TP17
TP40
IC15 BX3990 H,H/V WIPE SELECTOR
IC14 BX3992(1/2) H WIPE SIG CLAMPER
IC14 BX3992(2/2)
IC10 TC4069UBP(5/6) V WIPE SIG CLAMPER
IC13 NJM2903D +9V REG
IC17 TC4051BP
Q103 2SB856
Q67 2SC2603 PROTECTOR
Q69 2SC2603
RV40: FADER DC SET 1
RV41: FADER DC SET 2
RV35: H SLICE BIAS
RV33: +9V ADJ
RV34: V SLICE BIAS
RV43: BIAS
( ): PATT MOD OFF
FIX HD
BUFF
※1 R388, R389(4700) are added.
SER.NO.
WEX-2000(J) 10021 ~
WEX-2000(UC) 10031 ~
WEX-2000P(AEP,UK) 10001 ~
WEX-2000PM(BRZ) 10001 ~


TP24
+H WIPE SIG
1.9V
H
Q140 2SC2259
Q141 2SA979
Q121 2SC2603
Q120 2SA1175
RP1
R295 220
R294 4700
R292 4700
R293 220
C107 1 50V
C108 0.01
R254 2200
TP30
R255 4700
C111 47 16V
C112 0.01
TP55
+H/-V WP SIG
1.7V
TP25
H WIPE SIG
1.9V
IC17 TC4051BP
Q112 2SC2603
Q113 2SA1175
CLAMPER
Q149 2SA1175
Q148 2SA1175
Q119 2SC2603
WIPE OUT DRIVER
C99 47 16V
C100 0.01
C101 0.1 50V
C102 10 16V
C103 10 16V
C104 47P
C106 220 16V
R238 3300
R242 2200
R241 5600
RV39 1K
R239 10K
R240 27K
R310 10K
R311 1K
R312 1200
R251 150
R252 10K
R253 75
R352 4700
R353 4700
R354 4700
TP29
WP OUT
2.0V
WP OUT 15-4
WP OUT (G) 15-3
RV39: WIPE SET UP
C (WP-10(1/2))
WP MOD-0 IN 16-2
WP MOD-1 IN 16-1
FIX HD IN 6-3
Q117 2SA1175
MOSAIC WP IN 16-4
MOSAIC WP IN(G) 16-3
IC11 TC4011BP
Q116 2SA1175
Q143 2SC2603
Q114 2SA1175
CCF WIPE BUFF
IC10 TC4069UBP(6/6)
Q115 2SA1175
BLKG MIXER
Q118 2SC2603
CCF WIPE BUFF
R243 10K
R244 4700
R245 3300
R246 1K
R247 1200
R248 150
R249 10K
R250 75
C105 220 16V
R350 1K
R373 220
R351 3300
R338 220
TP52
TP27
TP28
CCF WP OUT
1.0V
CCF WP OUT 15-2
CCF WP OUT(G) 15-1
TP27
FIX BLKG
9.0V
( ): EXTENDER IN/OUT OFF
(EXTENDER IN/OUT:OFF)
FIX BLKG OUT 5-1
FIX BLKG IN 5-2
EXTEND LMP IN 6-4
TP51
-H/-V WIPE SIG
1.7V
H

WP-10 BOARD(2/2)
WEX-2000
WEX-2000P
WEX-2000PM

SER. NO. WEX-2000 (U/C) 10001 to 10160
WEX-2000P (AEP) 10001 to 10310
WEX-2000P (UK) 10001 to 10040

CP-54 BOARD


A
B
C
D
E
F
1
2
3
4
MH437F94V-0
IC1
IC2
IC3
IC4
IC5
IC6
IC7
IC8
IC9
IC10
IC11
IC12
IC13
IC14
IC15
IC17
IC18
IC19
IC20
IC21
IC22
IC23
IC24
IC25
IC27
IC28
IC29
IC30
IC31
IC32
IC33
IC34
IC35
IC36
IC37
IC38
IC39
TP1
TP2
TP3
TP4
TP5
TP6
TP7
TP8
TP9
TP10
TP11
TP12
TP13
TP14
TP15
TP16
TP17
TP18
TP19
TP20
TP21
TP22
TP23
TP24
TP25
TP26
TP27
TP28
TP29
TP30
TP31
TP32
TP33
TP34
TP35
TP36
TP37
TP38
TP39
TP40
TP41
TP42

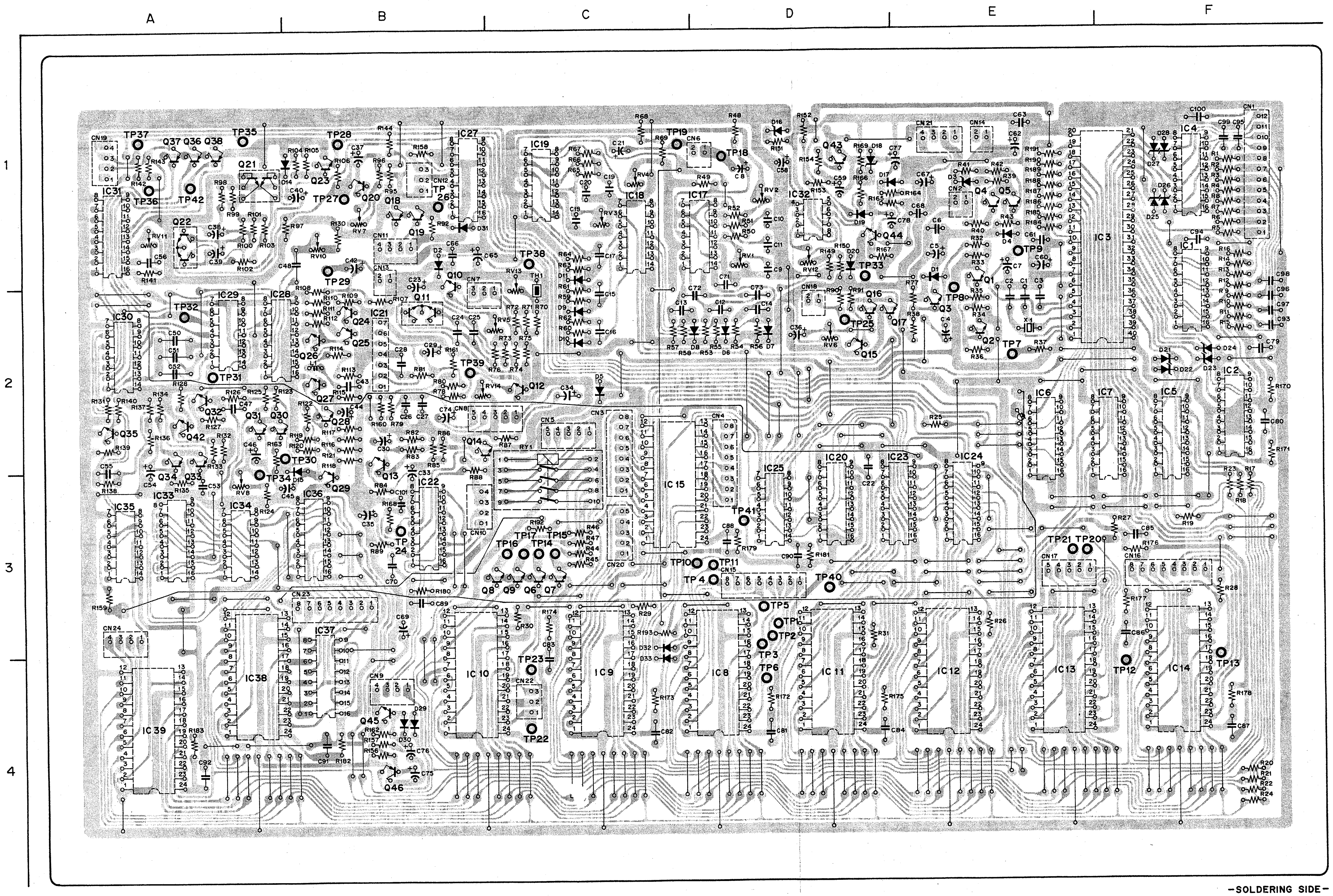
-SOLDERING SIDE-

CP-54 BOARD-11
WEX-2000(J) 10001～10110
WEX-2000(U/C) 10001～10160
WEX-2000P(AEP) 10001～10310
WEX-2000P(UK) 10001～10040

CN1	F - 1
CN2	E - 1
CN3	C - 2
CN4	D - 2
CN5	C - 2
CN6	D - 1
CN7	B - 2
CN8	C - 2
CN9	B - 4
CN10	B - 3
CN11	B - 1
CN12	B - 1
CN13	B - 1
CN14	E - 1
CN15	D - 3
CN16	F - 3
CN17	E - 3
CN18	D - 2
CN19	A - 1
CN20	C - 3
CN21	E - 1
CN22	C - 4
CN23	B - 3
CN24	A - 3
D1	E - 1
D2	B - 1
D3	E - 1
D4	E - 1
D5	C - 2
D6	D - 2
D7	D - 2
D8	D - 2
D9	C - 2
D10	C - 2
D11	C - 1
D14	B - 1
D15	B - 3
D16	D - 1
D17	E - 1
D18	D - 1
D19	D - 1
D20	D - 1
D21	F - 2
D22	F - 2
D23	F - 2
D24	F - 2
D25	F - 1
D26	F - 1
D27	F - 1
D28	F - 1
D29	B - 4
D30	B - 4
D31	B - 1
D32	C - 3
D33	C - 3
IC1	F - 1
IC2	F - 2
IC3	F - 1
IC4	F - 1
IC5	F - 2
IC6	E - 2
IC7	F - 2
IC8	D - 4
IC9	C - 4
IC10	B - 4
IC11	D - 4
IC12	E - 4
IC13	E - 4
IC14	F - 4
IC15	C - 3
IC17	D - 1
IC18	C - 1
IC19	C - 1
IC20	D - 3
IC21	B - 2
IC22	B - 3
IC23	E - 3
IC24	E - 3
IC25	D - 3
IC27	B - 1
IC28	A - 2
IC29	A - 2
IC30	A - 2
IC32	D - 1
IC33	A - 3
IC34	A - 3
IC35	A - 3
IC36	B - 3
IC37	B - 4
IC38	A - 4
IC39	A - 4
L1	B - 2
Q1	E - 1
Q2	E - 2
Q3	E - 2
Q4	E - 1
Q5	E - 1
Q6	C - 3
Q7	C - 3
Q8	C - 3
Q9	C - 3
Q10	B - 1
Q11	B - 2
Q12	C - 2
Q13	B - 2
Q14	B - 2
Q15	D - 2
Q16	D - 2
Q17	E - 2
Q18	B - 1
Q19	B - 1
Q20	B - 1
Q21	A - 1
Q22	A - 1
Q23	B - 1
Q24	B - 2
Q25	B - 2
Q26	B - 2
Q27	B - 2
Q28	B - 2
Q29	B - 3
Q30	A - 2
Q31	A - 2
Q32	A - 2
Q33	A - 2
Q34	A - 2
Q35	A - 2
Q36	A - 1
Q37	A - 1
Q38	A - 1
Q42	A - 2
Q43	D - 1
Q44	D - 1
Q45	B - 4
Q46	B - 4
RV1	D - 1
RV2	D - 1
RV3	C - 1
RV4	C - 1
RV5	C - 2
RV6	D - 2
RV7	B - 1
RV8	A - 3
RV10	B - 1
RV11	A - 1
RV12	D - 1
RV13	C - 1
RV14	B - 2
RY1	C - 3
TH1	C - 2
TP1	D - 3
TP2	D - 3
TP3	D - 3
TP4	D - 3
TP5	D - 3
TP6	D - 4
TP7	E - 2
TP8	E - 2
TP9	E - 1
TP10	C - 3
TP11	D - 3
TP12	F - 4
TP13	F - 4
TP14	C - 3
TP15	C - 3
TP16	C - 3
TP17	C - 3
TP18	D - 1
TP19	C - 1
TP20	E - 3
TP21	E - 3
TP22	C - 4
TP23	C - 4
TP25	D - 2
TP26	B - 1
TP27	B - 1
TP28	B - 1
TP29	B - 1
TP30	B - 2
TP31	A - 2
TP32	A - 2
TP33	D - 1
TP34	A - 3
TP35	A - 1
TP36	A - 1
TP37	A - 1
TP38	C - 1
TP39	B - 2
TP40	D - 3
TP41	D - 3
TP42	A - 1
X1	E - 2

SER. NO.	WEX-2000 (U/C)	10161~
	WEX-2000P (AEP)	10311~
	WEX-2000P (UK)	10041~
	WEX-2000PM (BRZ)	10001~

CP-54 BOARD

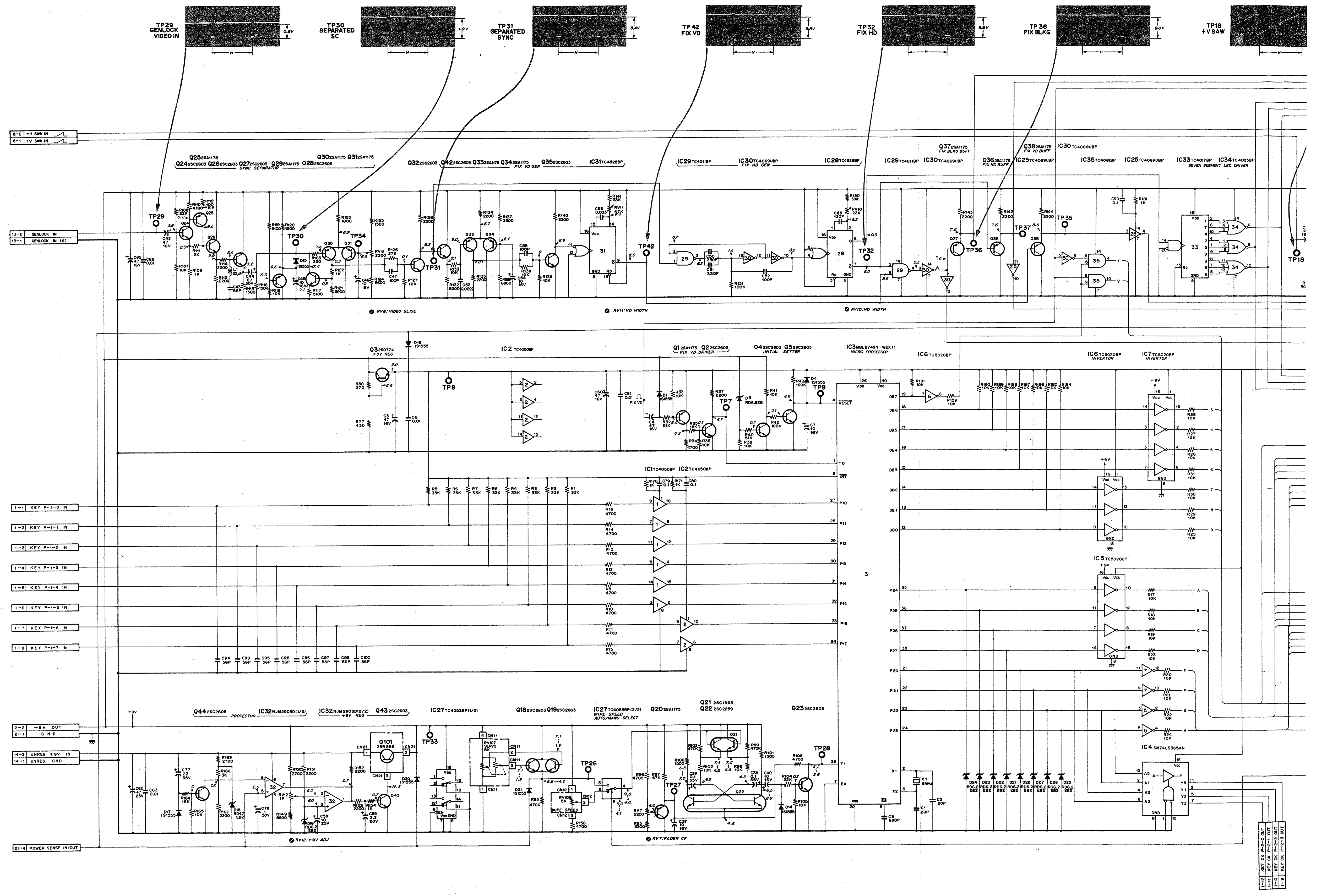

A
B
C
D
E
F
1
2
3
4
IC3
IC15
IC38
IC39
IC37
IC10
IC9
IC8
IC11
IC12
IC13
IC14
IC27
IC19
IC18
IC17
IC32
IC4
IC1
IC2
IC5
IC6
IC7
IC20
IC23
IC24
IC25
IC22
IC21
IC28
IC29
IC30
IC31
IC33
IC34
IC35
IC36

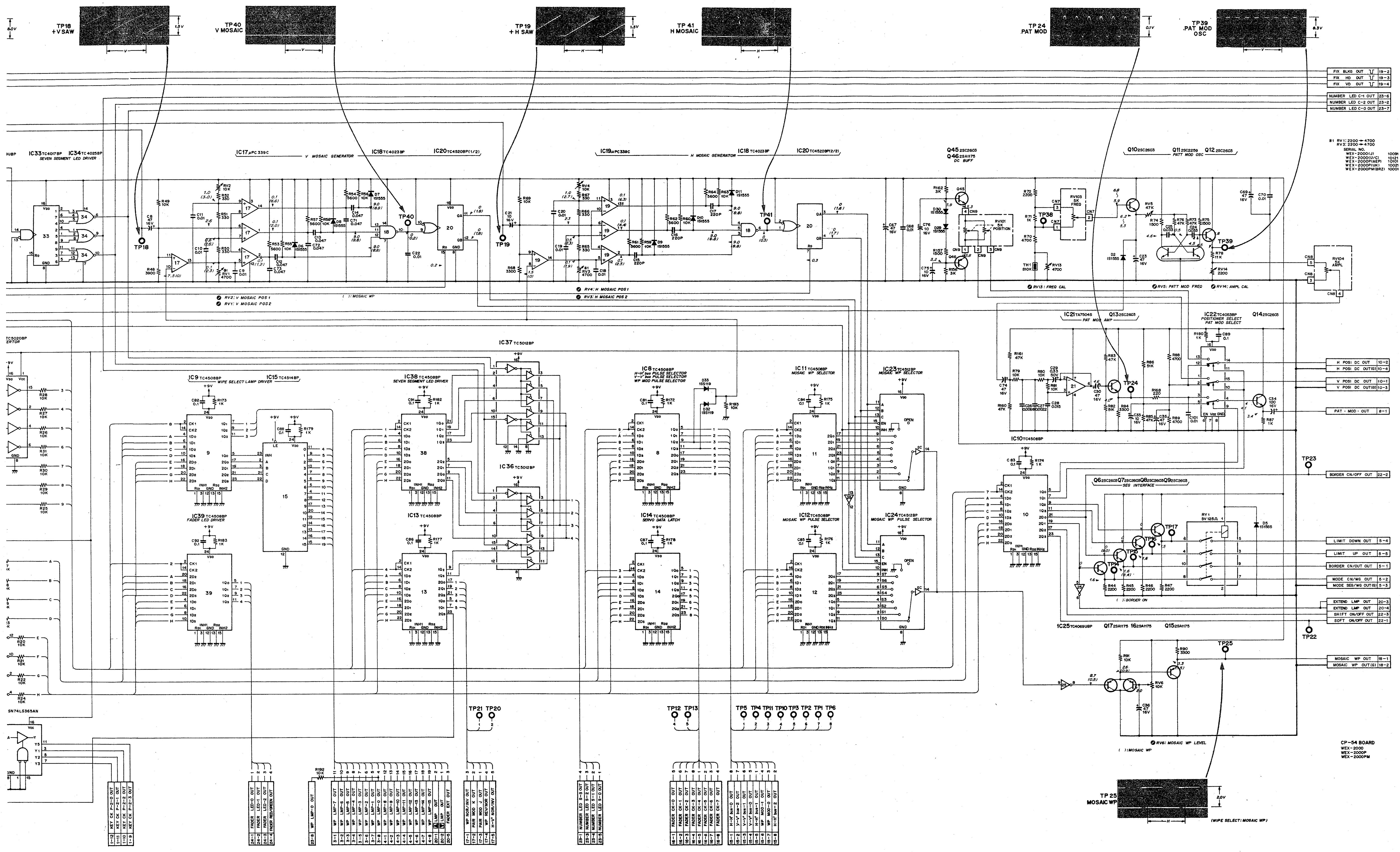
-SOLDERING SIDE-

CP-54 BOARD-13
WEX-2000(J) 10111~
WEX-2000(U/C) 10161~
WEX-2000P(AEP) 10311~
WEX-2000P(UK) 10041~
WEX-2000PM(BRZ) 10001~

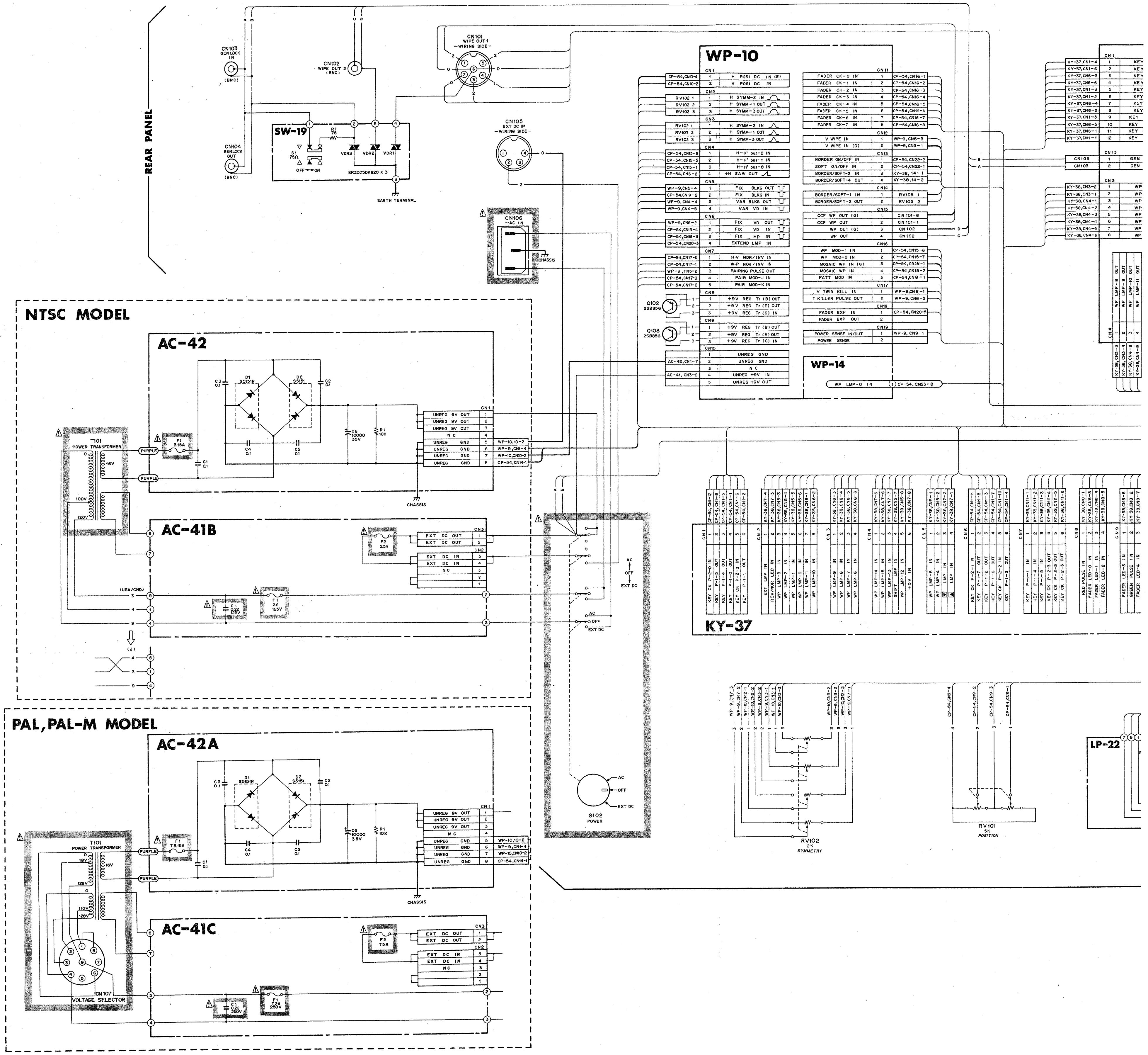
CN1	F-1
CN2	E-1
CN3	C-2
CN4	D-2
CN5	C-2
CN6	D-1
CN7	B-2
CN8	C-2
CN9	B-4
CN10	B-3
CN11	B-1
CN12	B-1
CN13	B-1
CN14	E-1
CN15	D-3
CN16	F-3
CN17	E-3
CN18	D-2
CN19	A-1
CN20	C-3
CN21	E-1
CN22	C-4
CN23	B-3
CN24	A-3
D1	E-1
D2	B-1
D3	E-1
D4	E-1
D5	C-2
D6	D-2
D7	D-2
D8	D-2
D9	C-2
D10	C-2
D11	C-1
D14	B-1
D15	B-3
D16	D-1
D17	E-1
D18	D-1
D19	D-1
D20	D-1
D21	F-2
D22	F-2
D23	F-2
D24	F-2
D25	F-1
D26	F-1
D27	F-1
D28	F-1
D29	B-4
D30	B-4
D31	B-1
D32	C-3
D33	C-3
IC1	F-1
IC2	F-2
IC3	F-1
IC4	F-1
IC5	F-2
IC6	E-2
IC7	F-2
IC8	D-4
IC9	C-4
IC10	B-4
IC11	D-4
IC12	E-4
IC13	E-4
IC14	F-4
IC15	C-3
IC17	D-1
IC18	C-1
IC19	C-1
IC20	D-3
IC21	B-2
IC22	B-3
IC23	E-3
IC24	E-3
IC25	D-3
IC27	B-1
IC28	A-2
IC29	A-2
IC30	A-2
IC32	D-1
IC33	A-3
IC34	A-3
IC35	A-3
IC36	B-3
IC37	B-4
IC38	A-4
IC39	A-4
L1	B-2
Q1	E-1
Q2	E-2
Q3	E-2
Q4	E-1
Q5	E-1
Q6	C-3
Q7	C-3
Q8	C-3
Q9	C-3
Q10	B-1
Q11	B-2
Q12	C-2
Q13	B-2
Q14	B-2
Q15	D-2
Q16	D-2
Q17	E-2
Q18	B-1
Q19	B-1
Q20	B-1
Q21	A-1
Q22	A-1
Q23	B-1
Q24	B-2
Q25	B-2
Q26	B-2
Q27	B-2
Q28	B-2
Q29	B-3
Q30	A-2
Q31	A-2
Q32	A-2
Q33	A-2
Q34	A-2
Q35	A-2
Q36	A-1
Q37	A-1
Q38	A-1
Q42	A-2
Q43	D-1
Q44	D-1
Q45	B-4
Q46	B-4
RV1	D-1
RV2	D-1
RV3	C-1
RV4	C-1
RV5	C-2
RV6	D-2
RV7	B-1
RV8	A-3
RV10	B-1
RV11	A-1
RV12	D-1
RV13	C-1
RV14	B-2
RY1	C-3
TH1	C-2
TP1	D-3
TP2	D-3
TP3	D-3
TP4	D-3
TP5	D-3
TP6	D-4
TP7	E-2
TP8	E-2
TP9	E-2
TP10	D-3
TP11	D-3
TP12	F-4
TP13	F-4
TP14	C-3
TP15	C-3
TP16	C-3
TP17	C-3
TP18	D-1
TP19	C-1
TP20	E-3
TP21	E-3
TP22	C-4
TP23	C-4
TP25	D-2
TP26	B-1
TP27	B-1
TP28	B-1
TP29	B-1
TP30	B-2
TP31	A-2
TP32	A-2
TP33	D-1
TP34	A-3
TP35	A-1
TP36	A-1
TP37	A-1
TP38	C-1
TP39	B-2
TP41	D-3
TP42	A-1
X1	E-2

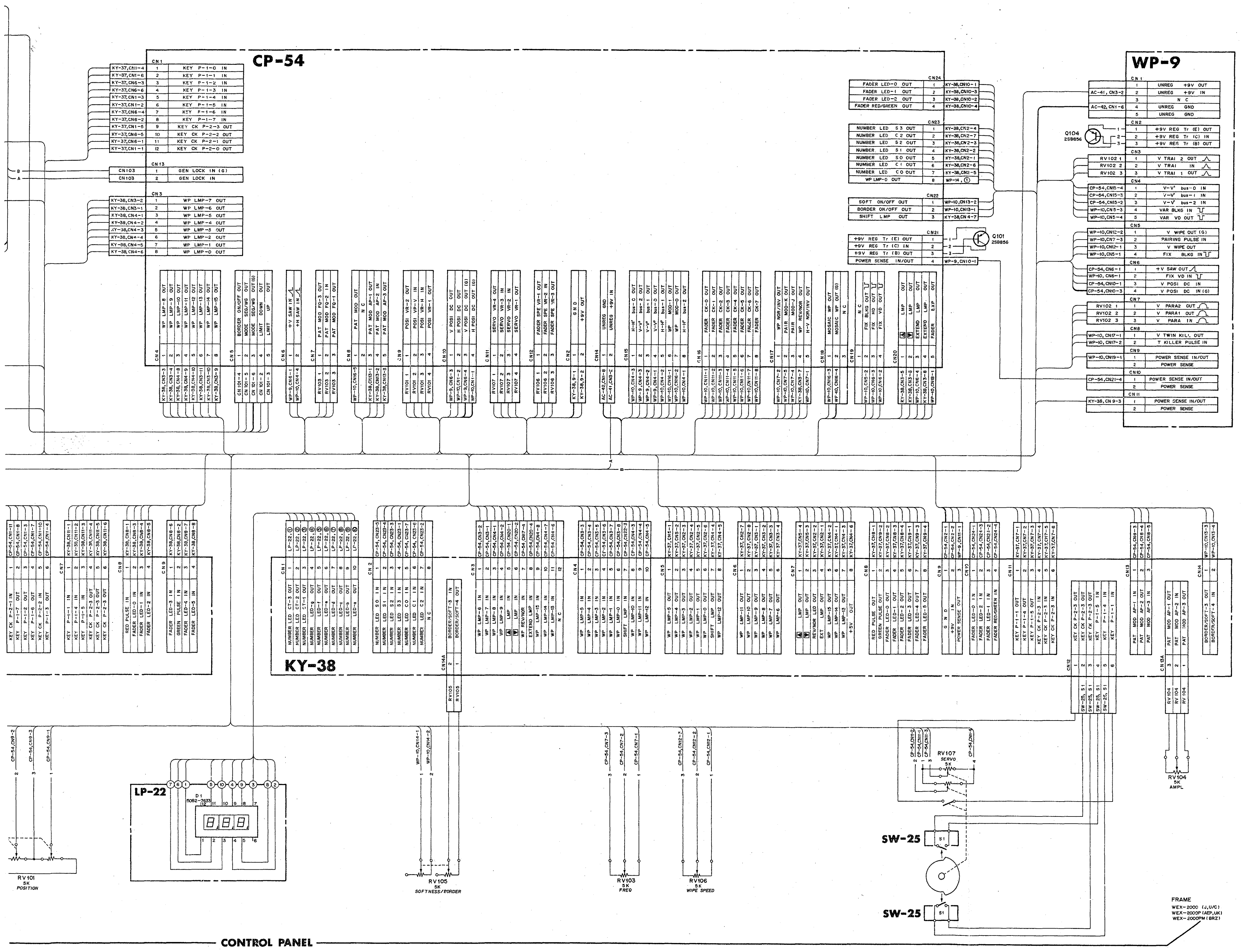
CP-54 BOARD


TP29 GENLOCK VIDEO IN
TP30 SEPARATED SC
TP31 SEPARATED SYNC
TP42 FIX VD
TP32 FIX HD
TP36 FIX BLKG
TP18 +V SAW
+H SAW IN
+V SAW IN
GENLOCK IN
GENLOCK IN (G)
Q25 2SA1175
Q24 2SC2603 Q26 2SC2603 Q27 2SC2603 Q29 2SA1175 Q28 2SC2603
SYNC SEPARATOR
Q30 2SA1175 Q31 2SA1175
Q32 2SC2603 Q42 2SC2603 Q33 2SA1175 Q34 2SA1175 Q35 2SC2603
FIX VD GEN
IC31 TC4528BP
IC29 TC4011BP
IC30 TC4069UBP
FIX HD GEN
IC28 TC4528BP
Q37 2SA1175 FIX BLKG BUFF
Q38 2SA1175 FIX VD BUFF
Q36 2SA1175 FIX HD BUFF
IC25 TC4069UBP
IC35 TC4081BP
IC33 TC4017BP
IC34 TC4025BP
SEVEN SEGMENT LED DRIVER
RV8: VIDEO SLISE
RV11: VD WIDTH
RV10: HD WIDTH
Q3 2SD774 +5V REG
IC2 TC4050BP
Q1 2SA1175 Q2 2SC2603 FIX VD DRIVER
Q4 2SC2603 Q5 2SC2603 INITIAL SETTER
IC3 MBL8749N-WEK11 MICRO PROCESSOR
IC6 TC5020BP
IC6 TC5020BP INVERTOR
IC7 TC5020BP INVERTOR
IC1 TC4050BP IC2 TC4050BP
IC5 TC5020BP
IC4 SN74LS365AN
KEY P-1-0 IN
KEY P-1-1 IN
KEY P-1-2 IN
KEY P-1-3 IN
KEY P-1-4 IN
KEY P-1-5 IN
KEY P-1-6 IN
KEY P-1-7 IN
+9V OUT
GND
UNREG +9V IN
UNREG GND
POWER SENSE IN/OUT
Q44 2SC2603 PROTECTOR
IC32 NJM2903D(1/2)
IC32 NJM2903D(2/2) +9V REG
Q43 2SC2603
IC27 TC4053BP(1/2)
Q18 2SC2603 Q19 2SC2603
IC27 TC4053BP(2/2) WIPE SPEED AUTO/MANU SELECT
Q20 2SA1175
Q21 2SC1963 Q22 2SC2259
Q23 2SC2603
Q101 2SB836
RV107 SERVO
RV106 WIPE SPEED
RV12: +9V ADJ
RV7: FADER CK
TP8 TP7 TP9 TP26 TP27 TP28 TP33 TP34 TP35 TP37
KEY CK P-2-0 OUT
KEY CK P-2-1 OUT
KEY CK P-2-2 OUT
KEY CK P-2-3 OUT


TP18 +V SAW
TP40 V MOSAIC
TP19 + H SAW
TP 41 H MOSAIC
TP 24 PAT MOD
TP39 PAT MOD OSC
TP 25 MOSAIC WP
(WIPE SELECT: MOSAIC WP)
IC33 TC4017BP IC34 TC4025BP SEVEN SEGMENT LED DRIVER
IC17 μPC339C V MOSAIC GENERATOR IC18 TC4023BP IC20 TC4520BP(1/2)
IC19 μPC339C H MOSAIC GENERATOR IC18 TC4023BP IC20 TC4520BP(2/2)
Q45 2SC2603 Q46 2SA1175 DC BUFF
Q10 2SC2603 Q11 2SC2259 Q12 2SC2603 PATT MOD OSC
RV2: V MOSAIC POS 1
RV1: V MOSAIC POS 2
RV4: H MOSAIC POS 1
RV3: H MOSAIC POS 2
RV13: FREQ CAL
RV5: PATT MOD FREQ
RV14: AMPL CAL
RV101 5K POSITION
RV103 5K FREQ
RV104 5K AMPL
IC21 TA75045 PAT MOD AMP Q13 2SC2603
IC22 TC4053BP POSITIONER SELECT PAT MOD SELECT Q14 2SC2603
IC37 TC5012BP
IC36 TC5012BP
IC9 TC4508BP WIPE SELECT LAMP DRIVER
IC15 TC4514BP
IC38 TC4508BP SEVEN SEGMENT LED DRIVER
IC39 TC4508BP FADER LED DRIVER
IC13 TC4508BP
IC8 TC4508BP H-H' bus PULSE SELECTOR V-V' bus PULSE SELECTOR WP MOD PULSE SELECTOR
IC14 TC4508BP SERVO DATA LATCH
IC11 TC4508BP MOSAIC WP SELECTOR
IC12 TC4508BP MOSAIC WP PULSE SELECTOR
IC23 TC4512BP MOSAIC WP SELECTOR
IC24 TC4512BP MOSAIC WP PULSE SELECTOR
IC10 TC4508BP
Q6 2SC2603 Q7 2SC2603 Q8 2SC2603 Q9 2SC2603 SEG INTERFACE
RY1 5V 125Ω
IC25 TC4069UBP Q17 2SA1175 16 2SA1175 Q15 2SA1175
RV6: MOSAIC WP LEVEL
( ): MOSAIC WP
( ): BORDER ON
SN74LS365AN
TP21 TP20
TP12 TP13
TP5 TP4 TP11 TP10 TP3 TP2 TP1 TP6
TP23
TP22
FIX BLKG OUT 19-2
FIX HD OUT 19-3
FIX VD OUT 19-4
NUMBER LED C-1 OUT 23-6
NUMBER LED C-2 OUT 23-2
NUMBER LED C-0 OUT 23-7
H POSI DC OUT 10-2
H POSI DC OUT(G) 10-4
V POSI DC OUT 10-1
V POSI DC OUT(G) 10-3
PAT-MOD-OUT 8-1
BORDER ON/OFF OUT 22-2
LIMIT DOWN OUT 5-4
LIMIT UP OUT 5-5
BORDER ON/OUT OUT 5-1
MODE ON/WG OUT 5-2
MODE SEG/WG OUT(G) 5-3
EXTEND LMP OUT 20-3
EXTEND LMP OUT 20-4
SHIFT ON/OFF OUT 22-3
SOFT ON/OFF OUT 22-1
MOSAIC WP OUT 18-1
MOSAIC WP OUT(G) 18-2
KEY CK F-2-0 OUT
KEY CK F-2-1 OUT
KEY CK F-2-2 OUT
KEY CK F-2-3 OUT
FADER LED-0 OUT
FADER LED-1 OUT
FADER LED-2 OUT
FADER RED/GREEN OUT
WP LMP-0 OUT
NUMBER LED S-0 OUT
NUMBER LED S-1 OUT
NUMBER LED S-2 OUT
NUMBER LED S-3 OUT
FADER CK-0 OUT
FADER CK-1 OUT
FADER CK-2 OUT
FADER CK-3 OUT
FADER CK-4 OUT
FADER CK-5 OUT
FADER CK-6 OUT
FADER CK-7 OUT
※1 RV1: 2200 → 4700
RV3: 2200 → 4700
SERIAL NO.
WEX-2000(J) 10091 ~
WEX-2000(U/C) 10121 ~
WEX-2000P(AEP) 10101 ~
WEX-2000P(UK) 10021 ~
WEX-2000PM(BRZ) 10001 ~
CP-54 BOARD
WEX-2000
WEX-2000P
WEX-2000PM

FRAME
AC-41B/41C BOARD
AC-42/42A BOARD
SW-19 BOARD

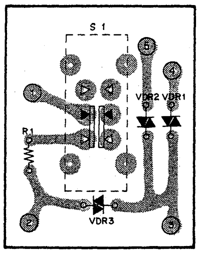

REAR PANEL
CN103 GEN LOCK IN (BNC)
CN104 GENLOCK OUT (BNC)
CN102 WIPE OUT 2 (BNC)
CN101 WIPE OUT 1 —WIRING SIDE—
SW-19
S1
OFF ON
VDR3 VDR2 VDR1
ERZC05DK820 X 3
EARTH TERMINAL
CN105 EXT DC IN —WIRING SIDE—
CN106 —AC IN
CHASSIS
WP-10
WP-14
KY-37
LP-22
Q102 2SB856
Q103 2SB856
NTSC MODEL
AC-42
AC-41B
T101 POWER TRANSFORMER
PURPLE
F1 3.15A
F2 2.5A
F1 2A 125V
C6 10000 35V
R1 10K
UNREG 9V OUT
UNREG GND
N C
EXT DC OUT
EXT DC IN
PAL,PAL-M MODEL
AC-42A
AC-41C
F1 T3.15A
F2 T5A
F1 T2A 250V
CN107 VOLTAGE SELECTOR
S102 POWER
AC
OFF
EXT DC
RV102 2K SYMMETRY
RV101 5K POSITION


CP-54
WP-9
KY-38
LP-22
D1
5082-7433
Q104
2SB656
Q101
2SB656
RV101
5K
POSITION
RV105
5K
SOFTNESS/BORDER
RV103
5K
FREQ
RV106
5K
WIPE SPEED
RV107
SERVO
5K
RV104
5K
AMPL
SW-25
SW-25
FRAME
WEX-2000 (J,U/C)
WEX-2000P (AEP,UK)
WEX-2000PM (BRZ)
CONTROL PANEL

NOTE:

The shaded and ⚠-marked components are critical to safety.
Replace only with same components as specified.

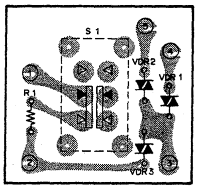
AC-41B BOARD
AC-42 BOARD
SW-19 BOARD


S 1
VDR2
VDR1
R1
VDR3
1
2
3
4
5

–SOLDERING SIDE–

SW-19 BOARD-11

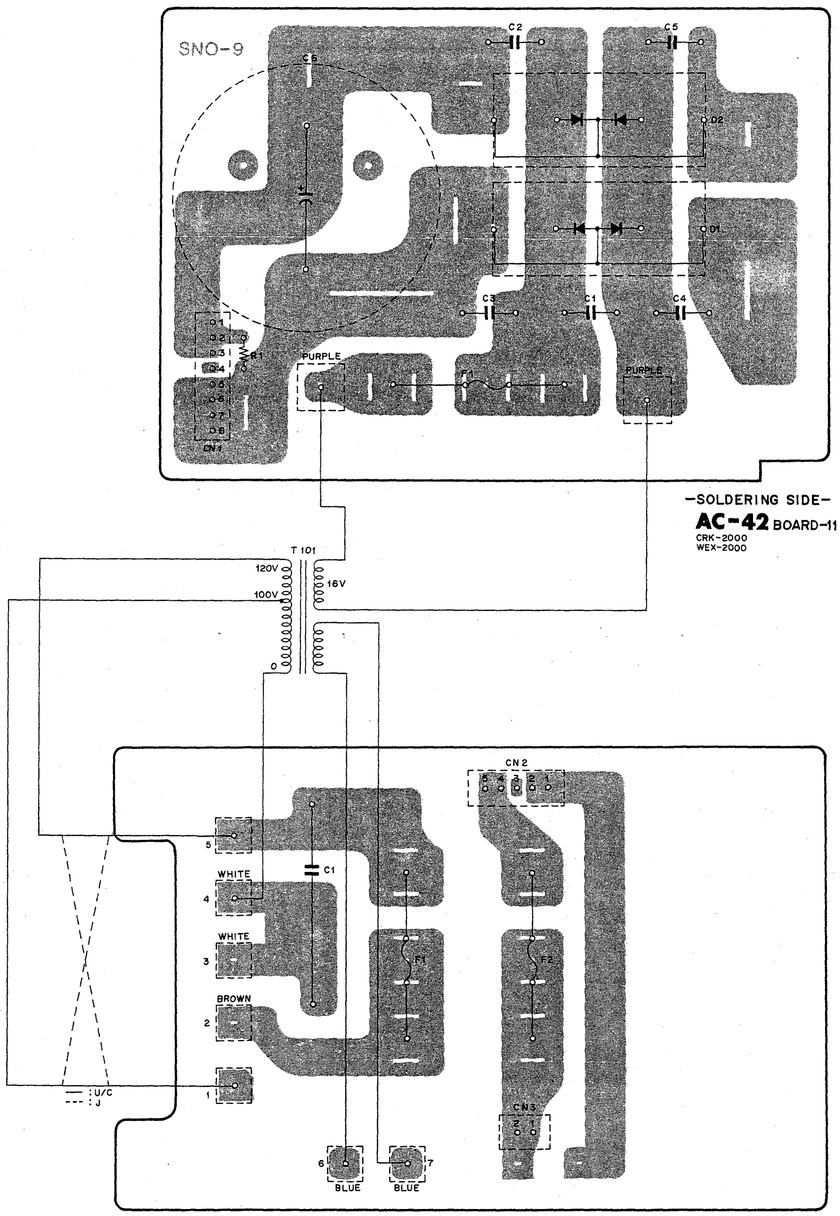
WEX-2000	(J)	10001 ~ 10110
WEX-2000	(U/C)	10001 ~ 10160
WEX-2000P	(AEP)	10001 ~ 10210
WEX-2000P	(UK)	10001 ~ 10020


S 1
VDR2
VDR 1
R1
VDR3
1
2
3
4
5

–SOLDERING SIDE–

SW-19 BOARD-12

WEX-2000(J)	10111 ~
WEX-2000(U/C)	10161 ~
WEX-2000P(AEP)	10211 ~
WEX-2000P(UK)	10021 ~
WEX-2000PM(BRZ)	10001 ~


SNO-9
C6
C2
C5
D2
D1
C3
C1
C4
R1
CN1
1
2
3
4
5
6
7
8
PURPLE
F1
PURPLE
T 101
120V
100V
16V
CN2
5 4 3 2 1
5
WHITE
4
WHITE
3
BROWN
2
1
C1
F1
F2
CN3
2 1
6
BLUE
7
BLUE
—— : U/C
- - - : J

–SOLDERING SIDE–

AC-42 BOARD-11

CRK-2000
WEX-2000

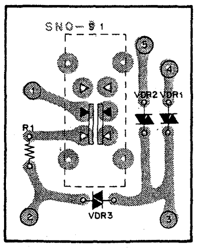
–SOLDERIG SIDE–

AC-41B BOARD-31

WEX-2000

AC BOARD (NTSC)

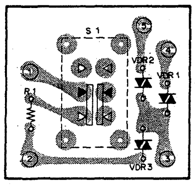
AC-41C BOARD
AC-42A BOARD
SW-19 BOARD


SNO-9 1
S1
VDR2
VDR1
R1
VDR3
1
2
3
4
5

-SOLDERING SIDE-

SW-19 BOARD-11

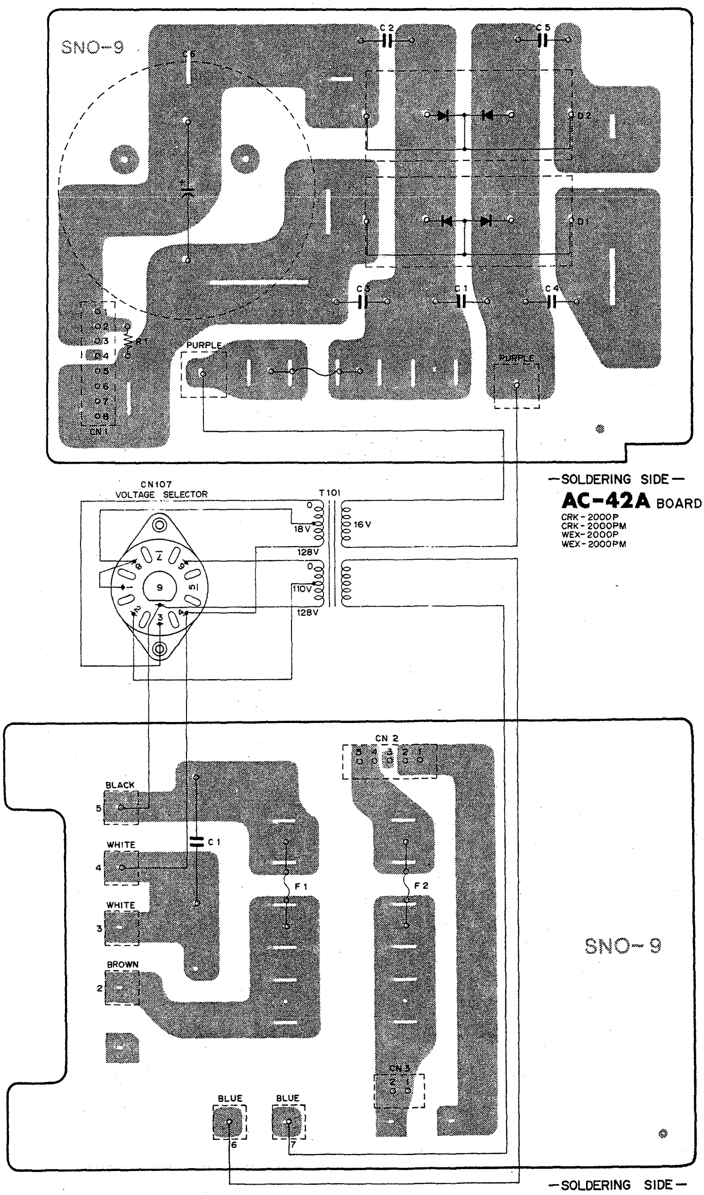
WEX-2000	(J)	10001～10110
WEX-2000	(U/C)	10001～10160
WEX-2000P	(AEP)	10001～10210
WEX-2000P	(UK)	10001～10020


S1
VDR2
VDR1
R1
VDR3
1
2
3
4
5

—SOLDERING SIDE—

SW-19 BOARD-12

WEX-2000(J)	10111～
WEX-2000(U/C)	10161～
WEX-2000P(AEP)	10211～
WEX-2000P(UK)	10021～
WEX-2000PM(BRZ)	10001～


SNO-9
C6
C2
C5
D2
D1
C3
C1
C4
R1
CN1
1
2
3
4
5
6
7
8
PURPLE
PURPLE
CN107
VOLTAGE SELECTOR
T101
18V
16V
128V
110V
128V
BLACK
5
WHITE
4
WHITE
3
BROWN
2
C1
F1
F2
CN2
CN3
BLUE
6
BLUE
7
SNO-9

—SOLDERING SIDE—

AC-42A BOARD-21,22

CRK-2000P
CRK-2000PM
WEX-2000P
WEX-2000PM

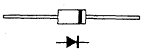
—SOLDERING SIDE—

AC-41C BOARD-42

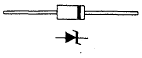
WEX-2000P
WEX-2000PM

AC BOARD (PAL, PAL-M)

SECTION 5
SEMICONDUCTOR

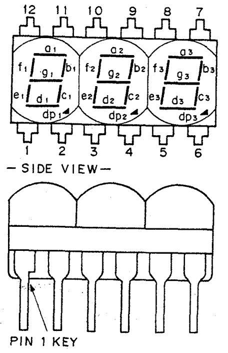


1S1555
1S2076
1S2473



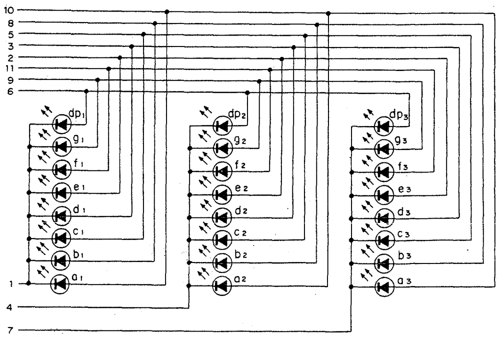
RD ? ?E

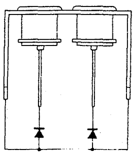
5082-7433 (HP)
TRIPLE 7-SEGMENT LED ; RED
— TOP VIEW —


12 11 10 9 8 7
a1 b1 c1 d1 e1 f1 g1 dp1
a2 b2 c2 d2 e2 f2 g2 dp2
a3 b3 c3 d3 e3 f3 g3 dp3
1 2 3 4 5 6
— SIDE VIEW —
PIN 1 KEY

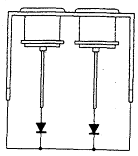
DEVICE PIN DESCRIPTION

PIN NO.	FUNCTION
1	CATHODE 1
2	ANODE e
3	ANODE d
4	CATHODE 2
5	ANODE c
6	ANODE dp
7	CATHODE 3
8	ANODE b
9	ANODE g
10	ANODE a
11	ANODE f
12	N/C

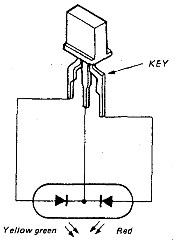

10
8
5
3
2
11
9
6
dp1 g1 f1 e1 d1 c1 b1 a1
dp2 g2 f2 e2 d2 c2 b2 a2
dp3 g3 f3 e3 d3 c3 b3 a3
1
4
7



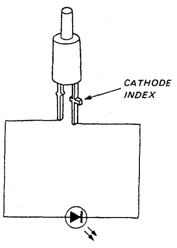
S5151



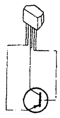
S5151R


KEY
Yellow green
Red

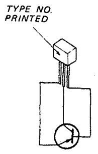
GL-9NP2


CATHODE INDEX

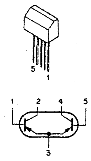
TLR-206 ; RED



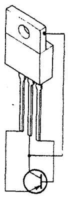
2SA1048
2SA1115


TYPE NO. PRINTED

2SA1175

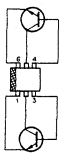


2SA979

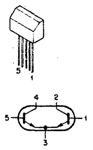


2SB856

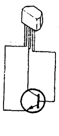
TOP VIEW



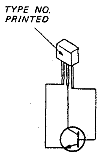
2SC1963



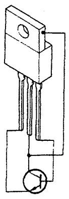
2SC2259



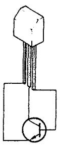
2SC2458
2SC2603


TYPE NO. PRINTED

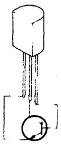
2SC2785



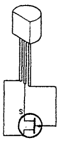
2SD313HP



2SD774

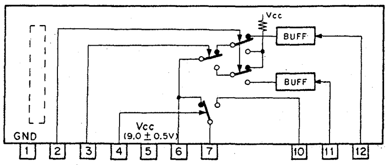


2SD789

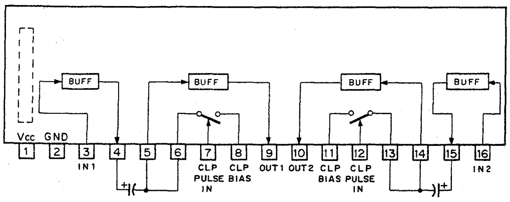


2SK43

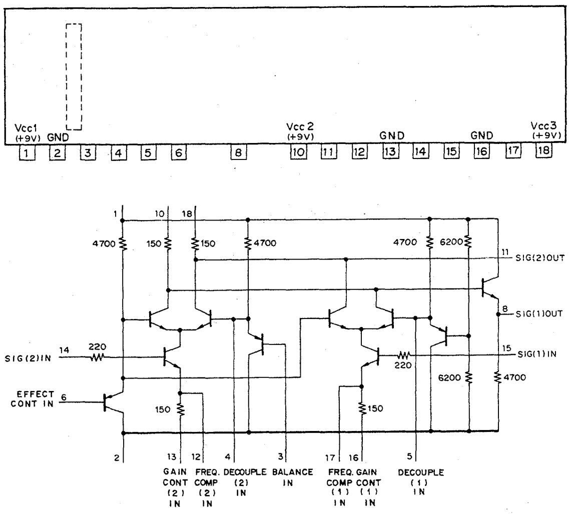
BX3990 (SONY)
2-CHANNEL SIGNAL SELECTOR
— REAR VIEW —


Vcc
BUFF
BUFF
GND
Vcc
(9.0 ± 0.5V)
1
2
3
4
5
6
7
10
11
12

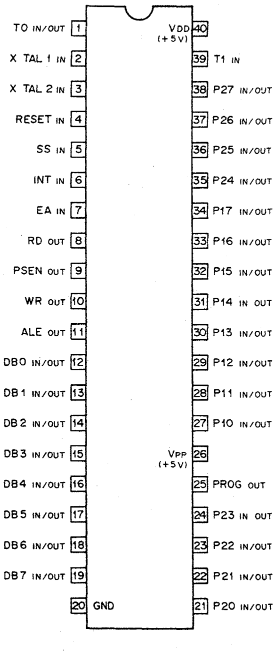
BX3992 (SONY)
DUAL CLAMPER
— REAR VIEW —

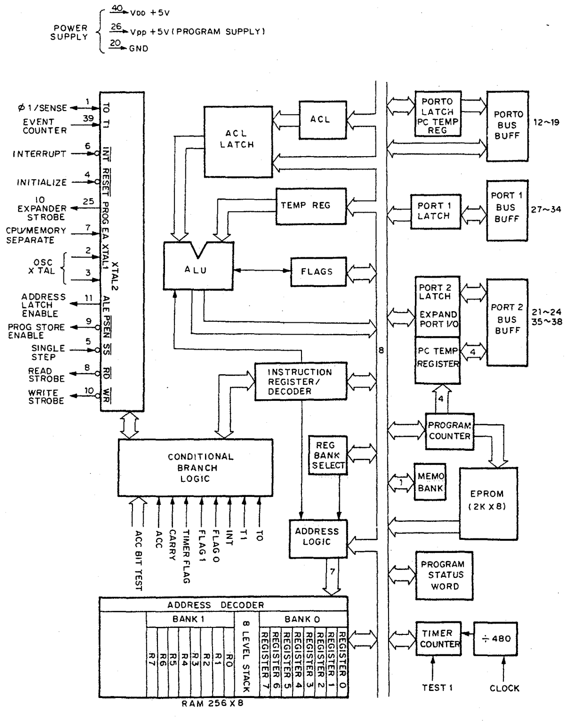

BUFF
BUFF
BUFF
BUFF
Vcc
GND
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
IN1
CLP PULSE IN
CLP BIAS
OUT1
OUT2
CLP BIAS
CLP PULSE IN
IN2

BX3991 (SONY)
FADER EFFECT AMPLIFIER
— REAR VIEW —


Vcc1
(+9V)
GND
Vcc 2
(+9V)
GND
GND
Vcc3
(+9V)
1
2
3
4
5
6
8
10
11
12
13
14
15
16
17
18
4700
150
150
4700
4700
6200
SIG(2)OUT
SIG(1)OUT
SIG(2)IN
220
EFFECT CONT IN
220
SIG(1)IN
6200
4700
150
150
GAIN CONT (2) IN
FREQ. COMP (2) IN
DECOUPLE (2) IN
BALANCE IN
FREQ. COMP (1) IN
GAIN CONT (1) IN
DECOUPLE (1) IN

MBL8749H/N (FUJITSU)
N-MOS 8-BIT MICROPROCESSOR
— TOP VIEW —

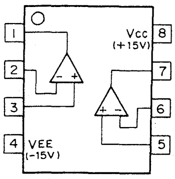

T0 IN/OUT 1
X TAL 1 IN 2
X TAL 2 IN 3
RESET IN 4
SS IN 5
INT IN 6
EA IN 7
RD OUT 8
PSEN OUT 9
WR OUT 10
ALE OUT 11
DB0 IN/OUT 12
DB1 IN/OUT 13
DB2 IN/OUT 14
DB3 IN/OUT 15
DB4 IN/OUT 16
DB5 IN/OUT 17
DB6 IN/OUT 18
DB7 IN/OUT 19
20 GND
VDD (+5V) 40
39 T1 IN
38 P27 IN/OUT
37 P26 IN/OUT
36 P25 IN/OUT
35 P24 IN/OUT
34 P17 IN/OUT
33 P16 IN/OUT
32 P15 IN/OUT
31 P14 IN OUT
30 P13 IN/OUT
29 P12 IN/OUT
28 P11 IN/OUT
27 P10 IN/OUT
VPP (+5V) 26
25 PROG OUT
24 P23 IN OUT
23 P22 IN/OUT
22 P21 IN/OUT
21 P20 IN/OUT


POWER SUPPLY
40 VDD +5V
26 VPP +5V (PROGRAM SUPPLY)
20 GND
φ1/SENSE
EVENT COUNTER
INTERRUPT
INITIALIZE
IO EXPANDER STROBE
CPU/MEMORY SEPARATE
OSC X TAL
ADDRESS LATCH ENABLE
PROG STORE ENABLE
SINGLE STEP
READ STROBE
WRITE STROBE
T0
T1
INT
RESET
PROG
EA
XTAL1
XTAL2
ALE
PSEN
SS
RD
WR
ACL LATCH
ACL
TEMP REG
ALU
FLAGS
INSTRUCTION REGISTER/ DECODER
CONDITIONAL BRANCH LOGIC
ACC BIT TEST
ACC
CARRY
TIMER FLAG
FLAG 1
FLAG 0
INT
T1
T0
REG BANK SELECT
ADDRESS LOGIC
ADDRESS DECODER
BANK 1
BANK 0
R7
R6
R5
R4
R3
R2
R1
R0
8 LEVEL STACK
REGISTER 7
REGISTER 6
REGISTER 5
REGISTER 4
REGISTER 3
REGISTER 2
REGISTER 1
REGISTER 0
RAM 256 X 8
PORT0 LATCH PC TEMP REG
PORT0 BUS BUFF
12~19
PORT 1 LATCH
PORT 1 BUS BUFF
27~34
PORT 2 LATCH
EXPAND PORT I/O
PC TEMP REGISTER
PORT 2 BUS BUFF
21~24
35~38
PROGRAM COUNTER
MEMO BANK
EPROM (2K X 8)
PROGRAM STATUS WORD
TIMER COUNTER
÷480
TEST 1
CLOCK
8
4
4
1
7

NJM2903D (JRC)

OPERATIONAL AMPLIFIER

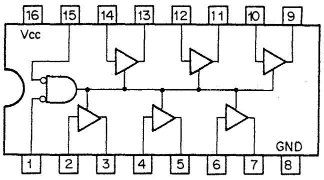
— TOP VIEW —

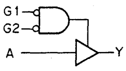

Vcc (+15V)
VEE (-15V)
1
2
3
4
5
6
7
8

SN74LS365AN (TI)

TTL 3-STATE BUS DRIVER

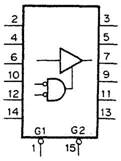
— TOP VIEW —


16
15
14
13
12
11
10
9
Vcc
GND
1
2
3
4
5
6
7
8



G1	G2	A	Y
0	0	0	0
0	0	1	1
0	1	X	HI-Z
1	0	X	HI-Z
1	1	X	HI-Z

0; LOW LEVEL
1; HIGH LEVEL
X; DON'T CARE
HI-Z; HIGH IMPEDANCE

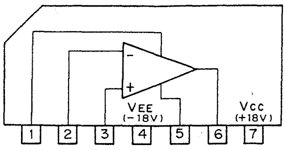

2
4
6
10
12
14
3
5
7
9
11
13
G1
G2
1
15

TA7504S (TOSHIBA)

TA7504S-R (LOW NOISE SELECTED)

OPERATIONAL AMPLIFIER

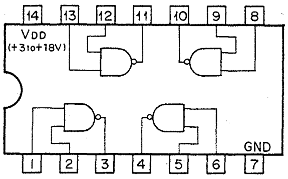
— SIDE VIEW —

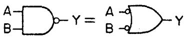

VEE (-18V)
Vcc (+18V)
1
2
3
4
5
6
7

TC4011BP (TOSHIBA)

C-MOS 2-INPUT NAND GATE

— TOP VIEW —


14
13
12
11
10
9
8
VDD (+3 to+18V)
GND
1
2
3
4
5
6
7



$Y = \overline{A \cdot B} = \overline{A} + \overline{B}$

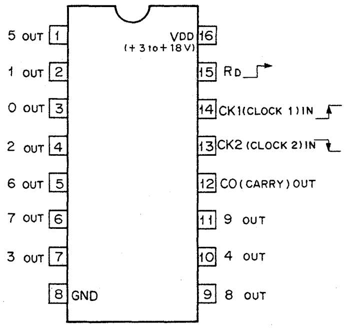
A	B	Y
0	0	1
0	1	1
1	0	1
1	1	0

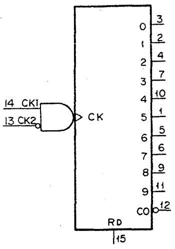
0: LOW LEVEL
1: HIGH LEVEL

TC4017BP (TOSHIBA)

C-MOS DECADE COUNTER/DIVIDER

— TOP VIEW —


5 OUT 1
1 OUT 2
0 OUT 3
2 OUT 4
6 OUT 5
7 OUT 6
3 OUT 7
8 GND
VDD (+3 to+18V) 16
15 RD
14 CK1 (CLOCK 1) IN
13 CK2 (CLOCK 2) IN
12 CO (CARRY) OUT
11 9 OUT
10 4 OUT
9 8 OUT


14 CK1
13 CK2
CK
0
1
2
3
4
5
6
7
8
9
CO
3
2
4
7
10
1
5
6
9
11
12
RD
15

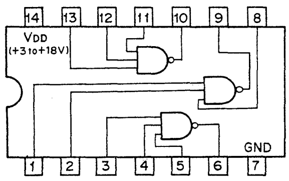
COUNT	INPUTS		OUTPUTS										
	RD	$CK = CK1 \cdot \overline{CK2}$	9	8	7	6	5	4	3	2	1	0	CO
0	1	X	0	0	0	0	0	0	0	0	0	1	1
0	0	↑	0	0	0	0	0	0	0	0	0	1	1
1	0	↑	0	0	0	0	0	0	0	0	1	0	1
2	0	↑	0	0	0	0	0	0	0	1	0	0	1
3	0	↑	0	0	0	0	0	0	1	0	0	0	1
4	0	↑	0	0	0	0	0	1	0	0	0	0	1
5	0	↑	0	0	0	0	1	0	0	0	0	0	0
6	0	↑	0	0	0	1	0	0	0	0	0	0	0
7	0	↑	0	0	1	0	0	0	0	0	0	0	0
8	0	↑	0	1	0	0	0	0	0	0	0	0	0
9	0	↑	1	0	0	0	0	0	0	0	0	0	0
NO COUNT	0	1	NO CHANGE										
	0	0											

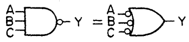
0 ; LOW LEVEL
1 ; HIGH LEVEL
X ; DON'T CARE

TC4023BP (TOSHIBA)

C-MOS 3-INPUT NAND GATE

— TOP VIEW —


14
13
12
11
10
9
8
VDD (+3 to+18V)
GND
1
2
3
4
5
6
7



$Y = \overline{A \cdot B \cdot C} = \overline{A} + \overline{B} + \overline{C}$

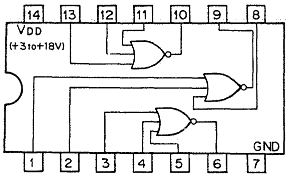
A	B	C	Y
X	X	0	1
X	0	X	1
0	X	X	1
1	1	1	0

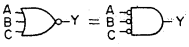
0 ; LOW LEVEL
1 ; HIGH LEVEL
X ; DON'T CARE

TC4025BP (TOSHIBA)

C-MOS 3-INPUT NOR GATE

— TOP VIEW —


14
13
12
11
10
9
8
VDD (+3 to+18V)
GND
1
2
3
4
5
6
7



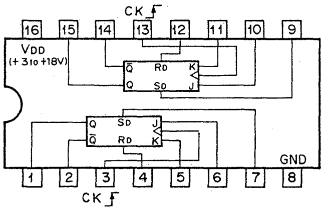
$Y = \overline{A + B + C} = \overline{A} \cdot \overline{B} \cdot \overline{C}$

A	B	C	Y
0	0	0	1
X	X	1	0
X	1	X	0
1	X	X	0

TC4027BP (TOSHIBA)

C-MOS J-K MASTER SLAVE FLIP-FLOP WITH DIRECT SET/RESET

— TOP VIEW —


CK
16
15
14
13
12
11
10
9
VDD (+3 to +18V)
Q
RD
K
Q
SD
J
Q
SD
J
Q
RD
K
GND
1
2
3
4
5
6
7
8
CK

DIRECT R-S FLIP FLOP

SD	RD	Q
0	0	Qn
0	1	0
1	0	1
1	1	0

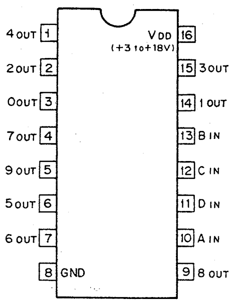
0; LOW LEVEL
1 ; HIGH LEVEL

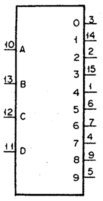
J-K FLIP FLOP

tn		tn+1
J	K	Q
0	0	Qn
0	1	0
1	0	1
1	1	$\overline{Qn}$

CK; ↑
tn; BEFORE CLOCK
tn+1; AFTER CLOCK

TC4028BP (TOSHIBA)
C-MOS BCD TO DECIMAL DECODER
— TOP VIEW —

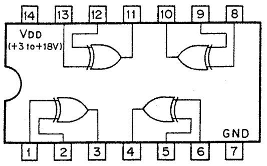

4 OUT 1
2 OUT 2
0 OUT 3
7 OUT 4
9 OUT 5
5 OUT 6
6 OUT 7
8 GND
VDD (+3 to+18V) 16
15 3 OUT
14 1 OUT
13 B IN
12 C IN
11 D IN
10 A IN
9 8 OUT

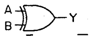

10 A
13 B
12 C
11 D
0 3
1 14
2 2
3 15
4 1
5 6
6 7
7 4
8 9
9 5

STATE	INPUTS				OUTPUTS									
	D	C	B	A	0	1	2	3	4	5	6	7	8	9
0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
1	0	0	0	1	0	1	0	0	0	0	0	0	0	0
2	0	0	1	0	0	0	1	0	0	0	0	0	0	0
3	0	0	1	1	0	0	0	1	0	0	0	0	0	0
4	0	1	0	0	0	0	0	0	1	0	0	0	0	0
5	0	1	0	1	0	0	0	0	0	1	0	0	0	0
6	0	1	1	0	0	0	0	0	0	0	1	0	0	0
7	0	1	1	1	0	0	0	0	0	0	0	1	0	0
8	1	X	X	0	0	0	0	0	0	0	0	0	1	0
9	1	X	X	1	0	0	0	0	0	0	0	0	0	1

0; LOW LEVEL
1; HIGH LEVEL
X; DON'T CARE

TC4030BP (TOSHIBA)
C-MOS EXCLUSIVE OR GATE
— TOP VIEW —


14
13
12
11
10
9
8
VDD
(+3 to +18V)
GND
1
2
3
4
5
6
7

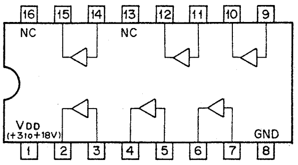


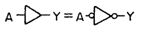
$Y = \bar{A} \cdot B + A \cdot \bar{B}$

A	B	Y
0	0	0
0	1	1
1	0	1
1	1	0

0; LOW LEVEL
1; HIGH LEVEL

TC4050BP (TOSHIBA)
C-MOS NON-INVERTING TYPE BUFFER/CONVERTER
— TOP VIEW —

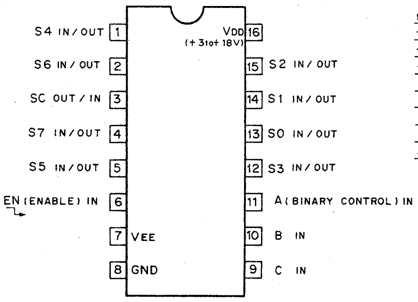

16
15
14
13
12
11
10
9
NC
NC
VDD
(+3to+18V)
GND
1
2
3
4
5
6
7
8

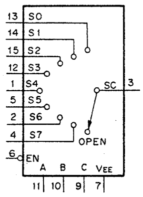


Y= A

A	Y
0	0
1	1

TC4051BP (TOSHIBA)
C-MOS 8-CHANNEL MULTIPLEXER/DEMULTIPLEXER
— TOP VIEW —

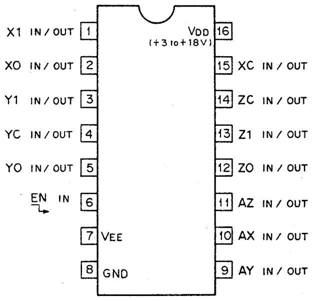

S4 IN/OUT 1
S6 IN/OUT 2
SC OUT/IN 3
S7 IN/OUT 4
S5 IN/OUT 5
EN (ENABLE) IN 6
7 VEE
8 GND
VDD (+3to+18V) 16
15 S2 IN/OUT
14 S1 IN/OUT
13 S0 IN/OUT
12 S3 IN/OUT
11 A (BINARY CONTROL) IN
10 B IN
9 C IN

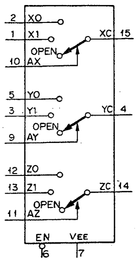

13 S0
14 S1
15 S2
12 S3
1 S4
5 S5
2 S6
4 S7
6 EN
SC 3
OPEN
A B C VEE
11 10 9 7

EN	C	B	A	"ON" CHANNEL
0	0	0	0	0
0	0	0	1	1
0	0	1	0	2
0	0	1	1	3
0	1	0	0	4
0	1	0	1	5
0	1	1	0	6
0	1	1	1	7
1	X	X	X	OPEN

0; LOW LEVEL
1; HIGH LEVEL
X; DON'T CARE

TC4053BP (TOSHIBA)
C-MOS 2-CHANNEL MULTIPLEXER/DEMULTIPLEXER
— TOP VIEW —

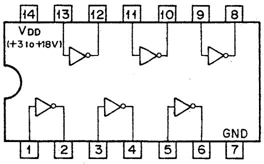

X1 IN/OUT 1
X0 IN/OUT 2
Y1 IN/OUT 3
YC IN/OUT 4
Y0 IN/OUT 5
EN IN 6
7 VEE
8 GND
VDD (+3 to+18V) 16
15 XC IN/OUT
14 ZC IN/OUT
13 Z1 IN/OUT
12 Z0 IN/OUT
11 AZ IN/OUT
10 AX IN/OUT
9 AY IN/OUT

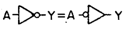

2 X0
1 X1
OPEN
10 AX
XC 15
5 Y0
3 Y1
OPEN
9 AY
YC 4
12 Z0
13 Z1
OPEN
11 AZ
ZC 14
EN VEE
6 7

CONT. INPUTS		ON CHANNEL
EN	A (X,Y,Z,)	
0	0	0
0	1	1
1	X	OPEN

0; LOW LEVEL
1; HIGH LEVEL
X; DON'T CARE.

TC4069UBP (TOSHIBA)
C-MOS INVERTER
— TOP VIEW —


14
13
12
11
10
9
8
VDD
(+3 to+18V)
GND
1
2
3
4
5
6
7

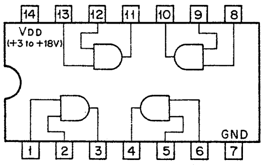


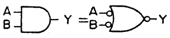
$Y = \bar{A}$

A	Y
0	1
1	0

0; LOW LEVEL
1; HIGH LEVEL

TC4081BP (TOSHIBA)
C-MOS 2-INPUT AND GATE
— TOP VIEW —


14
13
12
11
10
9
8
VDD
(+3 to +18V)
GND
1
2
3
4
5
6
7

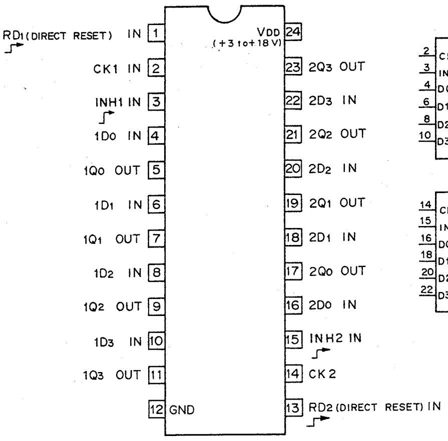


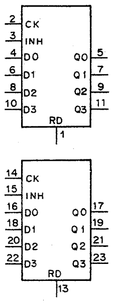
$Y = A \cdot B = \overline{\bar{A} + \bar{B}}$

A	B	Y
0	0	0
0	1	0
1	0	0
1	1	1

0; LOW LEVEL
1; HIGH LEVEL

MC14508BCP (MOTOROLA)
TC4508BP (TOSHIBA)
C-MOS 4-BIT LATCH
— TOP VIEW —


RD1 (DIRECT RESET) IN 1
CK1 IN 2
INH1 IN 3
1D0 IN 4
1Q0 OUT 5
1D1 IN 6
1Q1 OUT 7
1D2 IN 8
1Q2 OUT 9
1D3 IN 10
1Q3 OUT 11
12 GND
VDD (+3 to+18 V) 24
23 2Q3 OUT
22 2D3 IN
21 2Q2 OUT
20 2D2 IN
19 2Q1 OUT
18 2D1 IN
17 2Q0 OUT
16 2D0 IN
15 INH2 IN
14 CK 2
13 RD2 (DIRECT RESET) IN

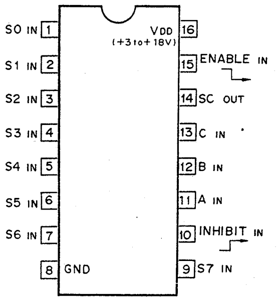

2 CK
3 INH
4 D0
6 D1
8 D2
10 D3
Q0 5
Q1 7
Q2 9
Q3 11
RD
1
14 CK
15 INH
16 D0
18 D1
20 D2
22 D3
Q0 17
Q1 19
Q2 21
Q3 23
RD
13

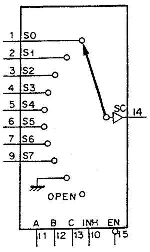
1 STAGE

INPUTS							OUTPUTS			
RD	CK	INH	D3	D2	D1	D0	Q3	Q2	Q1	Q0
0	1	0	0	0	0	0	0	0	0	0
0	1	0	0	0	0	1	0	0	0	1
0	1	0	0	0	1	0	0	0	1	0
0	1	0	0	1	0	0	0	1	0	0
0	1	0	1	0	0	0	1	0	0	0
0	0	0	X	X	X	X	LATCHED			
1	X	0	X	X	X	X	0	0	0	0
X	X	1	X	X	X	X	OPEN			

0 ; LOW LEVEL
1 ; HIGH LEVEL
X ; DON'T CARE

TC4512BP (TOSHIBA)
C-MOS 8-CHANNEL DATA SELECTOR/MULTIPLEXER
— TOP VIEW —

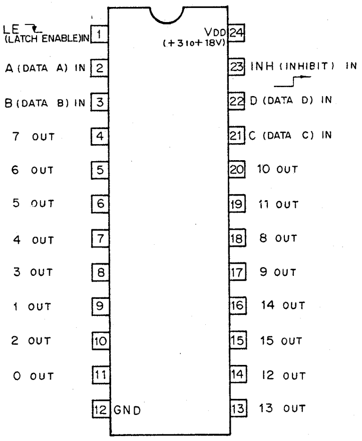

S0 IN 1
S1 IN 2
S2 IN 3
S3 IN 4
S4 IN 5
S5 IN 6
S6 IN 7
8 GND
VDD (+3 to+18V) 16
15 ENABLE IN
14 SC OUT
13 C IN
12 B IN
11 A IN
10 INHIBIT IN
9 S7 IN

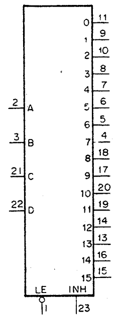

1 S0
2 S1
3 S2
4 S3
5 S4
6 S5
7 S6
9 S7
SC 14
OPEN
A B C INH EN
11 12 13 10 15

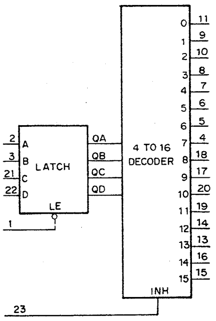
CONTROL INPUTS					OUTPUT
EN	INH	C	B	A	SC
0	0	0	0	0	S0
0	0	0	0	1	S1
0	0	0	1	0	S2
0	0	0	1	1	S3
0	0	1	0	0	S4
0	0	1	0	1	S5
0	0	1	1	0	S6
0	0	1	1	1	S7
0	1	X	X	X	GND
1	X	X	X	X	OPEN

0; LOW LEVEL
1; HIGH LEVEL
X; DON'T CARE

TC4514BP (TOSHIBA)
C-MOS 4-BIT LATCH/4-TO-16 LINE DECODER
— TOP VIEW —

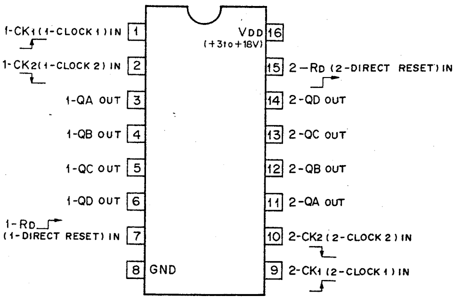

LE (LATCH ENABLE) IN 1
A (DATA A) IN 2
B (DATA B) IN 3
7 OUT 4
6 OUT 5
5 OUT 6
4 OUT 7
3 OUT 8
1 OUT 9
2 OUT 10
0 OUT 11
12 GND
VDD (+3 to+18V) 24
23 INH (INHIBIT) IN
22 D (DATA D) IN
21 C (DATA C) IN
20 10 OUT
19 11 OUT
18 8 OUT
17 9 OUT
16 14 OUT
15 15 OUT
14 12 OUT
13 13 OUT


2 A
3 B
21 C
22 D
0 11
1 9
2 10
3 8
4 7
5 6
6 5
7 4
8 18
9 17
10 20
11 19
12 14
13 13
14 16
15 15
LE INH
1
23


2 A
3 B
21 C
22 D
LATCH
LE
1
QA
QB
QC
QD
4 TO 16 DECODER
0 11
1 9
2 10
3 8
4 7
5 6
6 5
7 4
8 18
9 17
10 20
11 19
12 14
13 13
14 16
15 15
INH
23

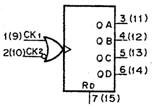
INH	LATCHED DATA				SELECTED OUTPUTS									
	QD	QC	QB	QA	15	14	13	12	----	4	3	2	1	0
0	0	0	0	0	0	0	0	0	----	0	0	0	0	1
0	0	0	0	1	0	0	0	0	----	0	0	0	1	0
0	0	0	1	0	0	0	0	0	----	0	0	1	0	0
0	0	0	1	1	0	0	0	0	----	0	1	0	0	0
0	0	1	0	0	0	0	0	0	----	1	0	0	0	0
⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮
0	1	1	0	0	0	0	0	1	----	0	0	0	0	0
0	1	1	0	1	0	0	1	0	----	0	0	0	0	0
0	1	1	1	0	0	1	0	0	----	0	0	0	0	0
0	1	1	1	1	1	0	0	0	----	0	0	0	0	0
1	X	X	X	X	ALL OUTPUTS=0									

TC4520BP (TOSHIBA)
C-MOS DUAL 4-BIT BINARY UP COUNTER
— TOP VIEW —


1-CK1 (1-CLOCK 1) IN 1
1-CK2 (1-CLOCK 2) IN 2
1-QA OUT 3
1-QB OUT 4
1-QC OUT 5
1-QD OUT 6
1-RD (1-DIRECT RESET) IN 7
8 GND
VDD (+3 to+18V) 16
15 2-RD (2-DIRECT RESET) IN
14 2-QD OUT
13 2-QC OUT
12 2-QB OUT
11 2-QA OUT
10 2-CK2 (2-CLOCK 2) IN
9 2-CK1 (2-CLOCK 1) IN

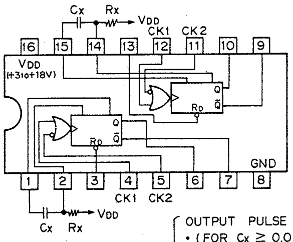
STATE	OUTPUTS			
	QD	QC	QB	QA
0	0	0	0	0
1	0	0	0	1
2	0	0	1	0
3	0	0	1	1
4	0	1	0	0
5	0	1	0	1
6	0	1	1	0
7	0	1	1	1
8	1	0	0	0
9	1	0	0	1
10	1	0	1	0
11	1	0	1	1
12	1	1	0	0
13	1	1	0	1
14	1	1	1	0
15	1	1	1	1

0;LOW LEVEL
1;HIGH LEVEL
X;DON'T CARE


1(9) CK1
2(10) CK2
QA 3 (11)
QB 4 (12)
QC 5 (13)
QD 6 (14)
RD
7 (15)

CK1	CK2	RD	ACTION
↑	1	0	INCREMENT COUNTER
0	↓	0	INCREMENT COUNTER
↓	X	0	NO CHANGE
X	↑	0	NO CHANGE
↑	0	0	NO CHANGE
1	↓	0	NO CHANGE
X	X	1	QA THRU QD = 0

TC4528BP (TOSHIBA)
C-MOS RETRIGGERABLE/RESETTABLE MMV
— TOP VIEW —

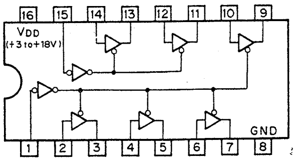

Cx
Rx
VDD
CK1 CK2
16 15 14 13 12 11 10 9
VDD (+3to+18V)
Q
Q̄
RD
GND
1 2 3 4 5 6 7 8
CK1 CK2
Cx Rx
VDD

INPUTS			OUTPUTS	
CK1	CK2	RD	Q	Q̄
↑	1	1	⎍	⊔
↑	0	1	Q	Q̄
1	↓	1	Q	Q̄
0	↓	1	⎍	⊔
X	X	0	0	1

0 ; LOW LEVEL
1 ; HIGH LEVEL
X ; DON'T CARE

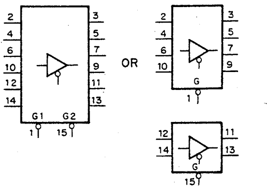
OUTPUT PULSE WIDTH Q OR Q̄
- (FOR $C_x \geqq 0.01\mu F$ USE FORMULA)
  $PW = 0.2 \cdot R_x \cdot C_x \cdot \ln (V_{DD} - GND)$
- (FOR $C_x < 0.01\mu F$ USE DATA BOOK.)

TC5012BP (TOSHIBA)
C-MOS NON-INVERTING 3-STATE BUFFER
— TOP VIEW —

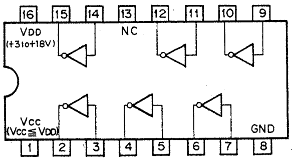

16 15 14 13 12 11 10 9
VDD (+3to+18V)
GND
1 2 3 4 5 6 7 8

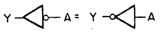
G	A	Y
0	0	0
0	1	1
1	X	HI-Z

0 ;LOW LEVEL
1 ;HIGH LEVEL
X ;DON'T CARE
HI-Z ;HIGH IMPEDANCE


2 4 6 10 12 14
3 5 7 9 11 13
G1 G2
1 15
OR
2 4 6 10
3 5 7 9
G
1
12 14
11 13
G
15

TC5020BP (TOSHIBA)
C-MOS LOW-TO-HIGH VOLTAGE TRANSLATION INVERTER
— TOP VIEW —


16 15 14 13 12 11 10 9
VDD (+3to+18V)
NC
Vcc (Vcc≦VDD)
GND
1 2 3 4 5 6 7 8

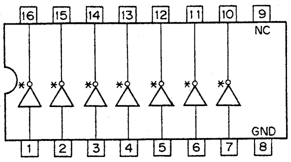


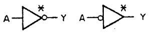
$Y = \overline{A}$

A	Y
0	1
1	0

0 ; LOW LEVEL
1 ; HIGH LEVEL

TD62105P (TOSHIBA)
TTL INVERTING DRIVER WITH OPEN COLLECTOR
— TOP VIEW —


16 15 14 13 12 11 10 9
NC
*
GND
1 2 3 4 5 6 7 8



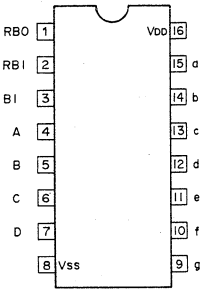
$Y = \overline{A}$

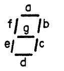
A	Y
0	1
1	0

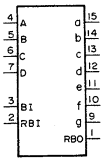
0; LOW LEVEL
1 ; HIGH LEVEL

⁎ OPEN COLLECTOR

TC5022BP (TOSHIBA)
C-MOS BCD-TO-SEVEN-SEGMENT DECODER/DRIVER
— TOP VIEW —


RBO 1
RBI 2
BI 3
A 4
B 5
C 6
D 7
8 Vss
VDD 16
15 a
14 b
13 c
12 d
11 e
10 f
9 g



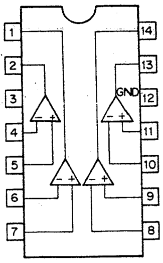

4 A
5 B
6 C
7 D
3 BI
2 RBI
a 15
b 14
c 13
d 12
e 11
f 10
g 9
RBO 1

RBO : RIPPLE BLANKING OUT
RBI : RIPPLE BLANKING IN
BI : BLANKING IN

INPUT						OUTPUT								DISPLAY (HEXADECIMAL)	DECIMAL
BI	RBI	A	B	C	D	a	b	c	d	e	f	g	RBO		
1	X	X	X	X	X	0	0	0	0	0	0	0	⁎	BLANK	
0	1	0	0	0	0	0	0	0	0	0	0	0	1	BLANK	
0	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0
0	X	1	0	0	0	0	1	1	0	0	0	0	0	1	1
0	X	0	1	0	0	1	1	0	1	1	0	1	0	2	2
0	X	1	1	0	0	1	1	1	1	0	0	1	0	3	3
0	X	0	0	1	0	0	1	1	0	0	1	1	0	4	4
0	X	1	0	1	0	1	0	1	1	0	1	1	0	5	5
0	X	0	1	1	0	1	0	1	1	1	1	1	0	6	6
0	X	1	1	1	0	1	1	1	0	0	1	0	0	7	7
0	X	0	0	0	1	1	1	1	1	1	1	1	0	8	8
0	X	1	0	0	1	1	1	1	1	0	1	1	0	9	9
0	X	0	1	0	1	1	1	1	1	1	1	0	0	0	10
0	X	1	1	0	1	0	1	1	0	0	0	0	0	1	11
0	X	0	0	1	1	1	1	0	1	1	0	1	0	2	12
0	X	1	0	1	1	1	1	1	1	0	0	1	0	3	13
0	X	0	1	1	1	0	1	1	0	0	1	1	0	4	14
0	X	1	1	1	1	1	0	1	1	0	1	1	0	5	15

X : DON'T CARE
⁎ : UNDETERMINED

uPC339C (NEC)
COMPARATOR
— TOP VIEW —


1 2 3 4 5 6 7
Vcc (+5V)
14 13 12 11 10 9 8
GND
− +

SECTION 6
SPARE PARTS

6-1. PARTS INFORMATION

1. **Safety Related Component Warning**

   Components identified by shading marked with ⚠ on the schematic diagrams, exploded views and electrical spare parts list are critical to safe operation. Replace these components with Sony parts whose parts numbers appear as shown in this manual or in service bulletins and service manual supplements published by Sony.

2. Replacement Parts supplied from Sony Parts Center will somtimes have different shape and outside view from the parts which actually in use. This is due to "accommodating the improved parts and/or engineering changes" or "standardization of genuine parts".
   - This manual's exploded views and electrical spare parts list are indicating the parts numbers of "the standardized genuine parts at present".
   - Regarding engineering parts changes in our engineering department, refer Sony service bulletins and service manual supplements.

3. **Printed Components in Bold-Face type** on the exploded views and electrical spare parts list are normally stocked for replacement purposes. The remaining parts are not normally required for routine service work. Orders for parts not shown in Bold-Face type will be processed, but allow for additional delivery time.

4. Item with no part number and/or no description are not stocked because they are seldom required for routine service.

6-2. ELECTRICAL PARTS LIST

Parts that are not listed in the "reference numbers order list" are shown in following table.
Reference numbers are omitted.

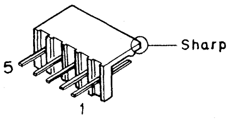
ABBREVIATION

Ref. No.	DESCRIPTION	Ref. No.	DESCRIPTION	Ref. No.	DESCRIPTION
C	CAPACITOR	IC	IC	R	RESISTOR
CN	CONNECTOR	J	JACK	RV	VARIABLE RESISTOR
D	DIODE	L	INDUCTOR	RY	RELAY
DL	DELAY LINE	LV	VARIABLE INDUCTOR	S	SWITCH
F	FUSE	PL	PILOT LAMP	T	TRANSFORMER
FL	FILTER	Q	TRANSISTOR	VDR	VARISTOR

All capacitors are in micro farads unless otherwise specified.
All inductors are in micro henries unless otherwise specified.
All resistors are in ohms.

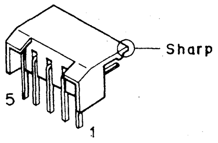
CONNECTOR

top-type receptacle



2P	1-560-356-00
3P	1-560-357-00
4P	1-560-358-00
5P	1-560-359-00
6P	1-560-360-00
8P	1-560-361-00
10P	1-560-362-00
12P	1-560-363-00

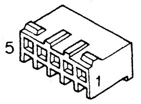
side-type receptacle



2P	1-560-364-00
3P	1-560-365-00
4P	1-560-366-00
5P	1-560-367-00
6P	1-560-368-00
8P	1-560-369-00
10P	1-560-370-00
12P	1-560-371-00

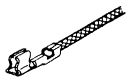
plug

housing



2P	1-561-514-00
3P	1-561-515-00
4P	1-561-516-00
5P	1-561-517-00
6P	1-561-518-00
8P	1-561-519-00
10P	1-561-520-00
12P	1-561-521-00

contact

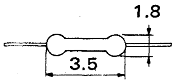


1-560-372-00

RESISTER

CARBON RESISTOR (1/6W)

±5%, 1/6W, non-special type
2.2Ω through 1MΩ



Parts No. 1-247-□□□-00

Value	Parts No. —□□□—
1Ω	–
1.1	–
1.2	–
1.3	–
1.5	–
1.6	–
1.8	–
2	–
2.2	767
2.4	768
2.7	769
3	770
3.3	771
3.6	772
3.9	773
4.3	774
4.7	775
5.1	776
5.6	777
6.2	778
6.8	779
7.5	780
8.2	781
9.1	782
10Ω	783
11	784
12	785
13	786
15	787
16	788
18	789
20	790
22	791
24	792
27	793
30	794
33	795
36Ω	796
39	797
43	798
47	799
51	800
56	801
62	802
68	803
75	804
82	805
91	806
100Ω	807
110	808
120	809
130	810
150	811
160	812
180	813
200	814
220	815
240	816
270	817
300	818
330	819
360	820
390	821
430	822
470	823
510	824
560	825
620	826
680	827
750	828
820	829
910	830
1kΩ	831
1.1	832
1.2kΩ	833
1.3	834
1.5	835
1.6	836
1.8	837
2	838
2.2	839
2.4	840
2.7	841
3	842
3.3	843
3.6	844
3.9	845
4.3	846
4.7	847
5.1	848
5.6	849
6.2	850
6.8	851
7.5	852
8.2	853
9.1	854
10kΩ	855
11	856
12	857
13	858
15	859
16	860
18	861
20	862
22	863
24	864
27	865
30	866
33	867
36	868
39	869
43kΩ	870
47	871
51	872
56	873
62	874
68	875
75	876
82	877
91	878
100kΩ	879
110	880
120	881
130	882
150	883
160	884
180	885
200	886
220	887
240	888
270	889
300	890
330	891
360	892
390	893
430	894
470	895
510	896
560	897
620	898
680	899
750	900
820	901
910	902
1MΩ	903

AC-41B BOARD (NTSC)

AC-41C BOARD (PAL, PAL-M)

Ref. No.	Parts No.	Description
	1-610-330-31	PRINTED CIRCUIT BOARD "AC-41B"
	1-610-330-42	PRINTED CIRCUIT BOARD "AC-41C"
	1-517-072-00	**FUSE HOLDER (NTSC)**
	1-553-131-00	**FUSE HOLDER (PAL, PAL-M)**
⚠ **C1**	**1-108-745-00**	**MYLAR 0.22 20% 125V (NTSC)**
⚠ **C1**	**1-130-160-00**	**MYLAR 0.22 20% 250V (PAL, PAL-M)**
⚠ **F1**	**1-532-268-XX**	**2A 125V (U/C)**
⚠ **F1**	**1-532-203-00**	**TIME LAG 2A 250V (PAL, PAL-M)**
⚠ **F2**	**1-532-348-00**	**2.5A 125V (U/C)**
⚠ **F2**	**1-532-286-00**	**TIME LAG 2.5A 250V (PAL, PAL-M)**

AC-42 BOARD (NTSC)

AC-42A BOARD (PAL, PAL-M)

Ref. No.	Parts No.	Description
	1-610-324-11	PRINTED CIRCUIT BOARD "AC-42"
	1-610-324-21	PRINTED CIRCUIT BOARD "AC-42A"
	1-517-072-00	**FUSE HOLDER (NTSC)**
	1-533-131-00	**FUSE HOLDER (PAL, PAL-M)**

Ref. No.	Parts No.	Description
C1	**1-108-389-00**	**MYLAR 0.1 10% 100V**
C2	**1-108-389-00**	**MYLAR 0.1 10% 100V**
C3	**1-108-389-00**	**MYLAR 0.1 10% 100V**
C4	**1-108-389-00**	**MYLAR 0.1 10% 100V**
C5	**1-108-389-00**	**MYLAR 0.1 10% 100V**
C6	**1-125-275-00**	**ELECT 10000 35V**
D1	**8-719-801-51**	**S5151R**
D2	**8-719-851-51**	**S5151**
⚠ **F1**	**1-532-403-XX**	**3.15A 125V (U/C)**
⚠ **F1**	**1-532-238-00**	**TIME LAG 3.15A 250V (PAL, PAL-M)**

CP-54 BOARD

Ref. No.	Parts No.	Description
	A-7615-144-A	MOUNTED CIRCUIT BOARD "CP-54 (N)" (NTSC)
	A-7615-145-A	MOUNTED CIRCUIT BORD "CP-54 (P)" (PAL, PAL-M)
C1	**1-107-209-00**	**MICA 20PF 5% 500V**
C2	**1-107-209-00**	**MICA 20PF 5% 500V**
C3	**1-102-116-00**	**CERAMIC 680PF 10% 50V**
C4	**1-123-821-00**	**ELECT 47 20% 16V**
C5	**1-123-821-00**	**ELECT 47 20% 16V**
C6	**1-161-013-00**	**CERAMIC 0.01 10% 25V**
C7	**1-123-617-00**	**ELECT 10 20% 16V**
C8	**1-123-821-00**	**ELECT 47 20% 16V**
C9	**1-161-013-00**	**CERAMIC 0.01 10% 25V**
C10	**1-161-013-00**	**CERAMIC 0.01 10% 25V**

NOTE:

1. **The shaded and ⚠-marked components are critical to safety.**
   Replace only with same components as specified.

2. Parts printed in **Bold-Face type** are normally stocked for replacement purposes. The remaining parts shown in this manual are not normally required for routine service work. Orders for parts not shown in Bold-Face type will be processed, but allow for additional delivery time.

Ref. No.	Parts No.	Description
C11	1-161-013-00	CERAMIC 0.01 10% 25V
C12	1-161-021-00	CERAMIC 0.047 10% 25V
C13	1-161-021-00	CERAMIC 0.047 10% 25V
C14	1-161-021-00	CERAMIC 0.047 10% 25V
C15	1-102-110-00	CERAMIC 220PF 10% 50V
C16	1-102-110-00	CERAMIC 220PF 10% 50V
C17	1-102-110-00	CERAMIC 220PF 10% 50V
C18	1-161-013-00	CERAMIC 0.01 10% 25V
C19	1-161-013-00	CERAMIC 0.01 10% 25V
C20	1-161-013-00	CERAMIC 0.01 10% 25V
C21	1-123-617-00	ELECT 10 20% 16V
C22	1-161-013-00	CERAMIC 0.01 10% 25V
C23	1-123-821-00	ELECT 47 20% 16V
C24	1-130-489-00	MYLAR 0.033 5% 50V
C25	1-130-489-00	MYLAR 0.033 5% 50V
C26	1-130-481-00	MYLAR 0.0068 5% 50V
C27	1-130-475-00	MYLAR 0.0022 5% 50V
C28	1-130-485-00	MYLAR 0.015 5% 50V
C29	1-123-609-00	ELECT 0.33 20% 50V
C30	1-123-821-00	ELECT 47 20% 16V
C33	1-123-617-00	ELECT 10 20% 16V
C34	1-124-143-00	ELECT 100 20% 16V
C35	1-123-821-00	ELECT 47 20% 16V
C36	1-123-821-00	ELECT 47 20% 16V
C37	1-123-617-00	ELECT 10 20% 16V
C38	1-131-341-00	TANTALUM 0.1 20% 35V
C39	1-131-341-00	TANTALUM 0.1 20% 35V
C40	1-123-617-00	ELECT 10 20% 16V
C42	1-123-821-00	ELECT 47 20% 16V
C43	1-107-081-00	MICA 68PF 5% 50V
C44	1-123-607-00	ELECT 0.1 20% 50V
C45	1-123-617-00	ELECT 10 20% 16V
C46	1-123-617-00	ELECT 10 20% 16V
C47	1-102-106-00	CERAMIC 100PF 10% 50V
C48	1-107-088-00	MICA 130PF 5% 50V
C50	1-107-097-00	MICA 330PF 5% 50V
C51	1-107-097-00	MICA 330PF 5% 50V
C52	1-107-085-00	MICA 100PF 5% 50V
C53	1-130-475-00	MYLAR 0.0022 5% 50V
C54	1-123-617-00	ELECT 10 20% 16V
C55	1-107-085-00	MICA 100PF 5% 50V
C56	1-130-489-00	MYLAR 0.033 5% 50V
C58	1-123-620-00	ELECT 10 20% 25V
C59	1-131-361-00	TANTALUM 2.2 10% 20V
C60	1-123-821-00	ELECT 47 20% 16V
C61	1-161-013-00	CERAMIC 0.01 10% 25V
C62	1-124-147-00	ELECT 47 20% 25V
C63	1-161-013-00	CERAMIC 0.01 10% 25V
C65	1-123-821-00	ELECT 47 20% 16V
C66	1-161-013-00	CERAMIC 0.01 10% 25V
C67	1-123-821-00	ELECT 47 20% 16V
C68	1-161-013-00	CERAMIC 0.01 10% 25V
C69	1-123-821-00	ELECT 47 20% 16V
C70	1-161-013-00	CERAMIC 0.01 10% 25V
C71	1-161-021-00	CERAMIC 0.047 10% 25V
C72	1-161-021-00	CERAMIC 0.047 10% 25V
C73	1-161-021-00	CERAMIC 0.047 10% 25V
C74	1-123-821-00	ELECT 47 20% 16V
C75	1-123-617-00	ELECT 10 20% 16V
C76	1-123-617-00	ELECT 10 20% 16V
C77	1-123-817-00	ELECT 22 20% 35V
C78	1-123-611-00	ELECT 1 20% 50V
C79	1-130-495-00	MYLAR 0.1 5% 50V
C80	1-130-495-00	MYLAR 0.1 5% 50V
C81	1-130-495-00	MYLAR 0.1 5% 50V
C82	1-130-495-00	MYLAR 0.1 5% 50V
C83	1-130-495-00	MYLAR 0.1 5% 50V
C84	1-130-495-00	MYLAR 0.1 5% 50V
C85	1-130-495-00	MYLAR 0.1 5% 50V
C86	1-130-495-00	MYLAR 0.1 5% 50V
C87	1-130-495-00	MYLAR 0.1 5% 50V
C88	1-130-495-00	MYLAR 0.1 5% 50V
C89	1-130-495-00	MYLAR 0.1 5% 50V
C90	1-130-495-00	MYLAR 0.1 5% 50V
C91	1-130-495-00	MYLAR 0.1 5% 50V
C92	1-130-495-00	MYLAR 0.1 5% 50V
C93	1-101-884-00	CERAMIC 56PF 5% 50V
C94	1-101-884-00	CERAMIC 56PF 5% 50V
C95	1-101-884-00	CERAMIC 56PF 5% 50V
C96	1-101-884-00	CERAMIC 56PF 5% 50V

NOTE:

1. **The shaded and ⚠-marked components are critical to safety.**
   Replace only with same components as specified.
2. Parts printed in **Bold-Face type** are normally stocked for replacement purposes. The remaining parts shown in this manual are not normally required for routine service work. Orders for parts not shown in Bold-Face type will be processed, but allow for additional delivery time.

Ref. No.	Parts No.	Description
C97	1-101-884-00	CERAMIC 56PF 5% 50V
C98	1-101-884-00	CERAMIC 56PF 5% 50V
C99	1-101-884-00	CERAMIC 56PF 5% 50V
C100	1-101-884-00	CERAMIC 56PF 5% 50V
C101	1-161-013-00	CERAMIC 0.01 10% 25V
D1	8-719-815-55	1S1555
D2	8-719-815-55	1S1555
D3	8-719-168-07	RD6.8EB
D4	8-719-815-55	1S1555
D5	8-719-815-55	1S1555
D6	8-719-815-55	1S1555
D7	8-719-815-55	1S1555
D8	8-719-815-55	1S1555
D9	8-719-815-55	1S1555
D10	8-719-815-55	1S1555
D11	8-719-815-55	1S1555
D14	8-719-815-55	1S1555
D15	8-719-815-55	1S1555
D16	8-719-100-38	RD6.2EB2
D17	8-719-815-55	1S1555
D18	8-719-100-27	RD4.7EB2
D19	8-719-815-55	1S1555
D20	8-719-815-55	1S1555
D21	8-719-100-38	RD6.2EB2
D22	8-719-100-38	RD6.2EB2
D23	8-719-100-38	RD6.2EB2
D24	8-719-100-38	RD6.2EB2
D25	8-719-100-38	RD6.2EB2
D26	8-719-100-38	RD6.2EB2
D27	8-719-100-38	RD6.2EB2
D28	8-719-100-38	RD6.2EB2
D29	8-719-815-55	1S1555
D30	8-719-815-55	1S1555
D31	8-719-815-55	1S1555
D32	8-719-911-19	1SS119
D33	8-719-911-19	1SS119

Ref. No.	Parts No.	Description
IC1	8-759-240-50	TC4050BP: TOSHIBA
IC2	8-759-240-50	TC4050BP: TOSHIBA
IC3	8-759-758-70	MBL8749N-WEX11: FUJITSU
IC4	8-759-903-65	SN74LS365AN: TI
IC5	8-759-250-20	TC5020BP: TOSHIBA
IC6	8-759-250-20	TC5020BP: TOSHIBA
IC7	8-759-250-20	TC5020BP: TOSHIBA
IC8	8-759-245-08	TC4508BP: TOSHIBA
IC9	8-759-245-08	TC4508BP: TOSHIBA
IC10	8-759-245-08	TC4508BP: TOSHIBA
IC11	8-759-245-08	TC4508BP: TOSHIBA
IC12	8-759-245-08	TC4508BP: TOSHIBA
IC13	8-759-245-08	TC4508BP: TOSHIBA
IC14	8-759-245-08	TC4508BP: TOSHIBA
IC15	8-759-245-14	TC4514BP: TOSHIBA
IC17	8-759-133-90	μPC339C: NEC
IC18	8-759-240-23	TC4023BP: TOSHIBA
IC19	8-759-133-90	μPC339C: NEC
IC20	8-759-245-20	TC4520BP: TOSHIBA
IC21	8-759-205-04	TA7504S-R: TOSHIBA
IC22	8-759-240-53	TC4053BP: TOSHIBA
IC23	8-759-245-12	TC4512BP: TOSHIBA
IC24	8-759-245-12	TC4512BP: TOSHIBA
IC25	8-759-240-69	TC4069UBP: TOSHIBA
IC27	8-759-240-53	TC4053BP: TOSHIBA
IC28	8-759-245-28	TC4528BP: TOSHIBA
IC29	8-759-240-11	TC4011BP: TOSHIBA
IC30	8-759-240-69	TC4069UBP: TOSHIBA
IC31	8-759-245-28	TC4528BP: TOSHIBA
IC32	8-759-729-03	NJM2903D: JRC
IC33	8-759-240-17	TC4017BP: TOSHIBA
IC34	8-759-240-25	TC4025BP: TOSHIBA
IC35	8-759-240-81	TC4081BP: TOSHIBA
IC36	8-759-250-12	TC5012BP: TOSHIBA
IC37	8-759-250-12	TC5012BP: TOSHIBA
IC38	8-759-245-08	TC4508BP: TOSHIBA
IC39	8-759-245-08	TC4508BP: TOSHIBA

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Ref. No.	Parts No.	Description
L1	1-407-161-XX	MICRO 22
Q1	8-729-117-54	2SA1175
Q2	8-729-178-54	2SC2785
Q3	8-729-177-43	2SD774
Q4	8-729-178-54	2SC2785
Q5	8-729-178-54	2SC2785
Q6	8-729-178-54	2SC2785
Q7	8-729-178-54	2SC2785
Q8	8-729-178-54	2SC2785
Q9	8-729-178-54	2SC2785
Q10	8-729-178-54	2SC2785
Q11	8-729-625-91	2SC2259
Q12	8-729-178-54	2SC2785
Q13	8-729-178-54	2SC2785
Q14	8-729-178-54	2SC2785
Q15	8-729-117-54	2SA1175
Q16	8-729-117-54	2SA1175
Q17	8-729-117-54	2SA1175
Q18	8-729-178-54	2SC2785
Q19	8-729-178-54	2SC2785
Q20	8-729-117-54	2SA1175
Q21	8-765-222-20	2SC1963
Q22	8-729-625-91	2SC2259
Q23	8-729-178-54	2SC2785
Q24	8-729-178-54	2SC2785
Q25	8-729-117-54	2SA1175
Q26	8-729-178-54	2SC2785
Q27	8-729-178-54	2SC2785
Q28	8-729-178-54	2SC2785
Q29	8-729-117-54	2SA1175
Q30	8-729-117-54	2SA1175
Q31	8-729-117-54	2SA1175
Q32	8-729-178-54	2SC2785
Q33	8-729-117-54	2SA1175
Q34	8-729-117-54	2SA1175
Q35	8-729-178-54	2SC2785
Q36	8-729-117-54	2SA1175
Q37	8-729-117-54	2SA1175
Q38	8-729-117-54	2SA1175
Q42	8-729-178-54	2SC2785
Q43	8-729-178-54	2SC2785
Q44	8-729-178-54	2SC2785
Q45	8-729-178-54	2SC2785
Q46	8-729-117-54	2SA1175
R50	1-214-545-00	METAL 330 1% 1/8W
R51	1-214-545-00	METAL 330 1% 1/8W
R52	1-214-545-00	METAL 330 1% 1/8W
R65	1-214-545-00	METAL 330 1% 1/8W
R66	1-214-545-00	METAL 330 1% 1/8W
R67	1-214-545-00	METAL 330 1% 1/8W
RV1	1-226-702-00	METAL 2.2K Up to 10120 (U/C) Up to 10100 (AEP) Up to 10020 (UK)
	1-226-772-00	METAL 4.7K Serial No. 10121 and higher (U/C) Serial No. 10101 and higher (AEP) Serial No. 10021 and higher (UK)
RV2	1-226-703-00	METAL 10K
RV3	1-226-702-00	METAL 2.2K Up to 10120 (U/C) Up to 10100 (AEP) Up to 10020 (UK)
	1-226-772-00	METAL 4.7K Serial No. 10121 and higher (U/C) Serial No. 10101 and higher (AEP) Serial No. 10021 and higher (UK)
RV4	1-226-703-00	METAL 10K
RV5	1-226-774-00	METAL 47K
RV6	1-226-703-00	METAL 10K
RV7	1-226-702-00	METAL 2.2K
RV8	1-226-702-00	METAL 2.2K
RV10	1-226-773-00	METAL 22K
RV11	1-226-774-00	METAL 47K

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Ref. No.	Parts No.	Description
RV12	1-226-771-00	METAL 1K
RV13	1-226-772-00	METAL 4.7K
RV14	1-226-702-00	METAL 2.2K
RY1	1-515-463-00	5V 125Ω
TH1	1-800-202-XX	S-10K
X1	1-527-812-00	6MHz

KY-37 BOARD

Ref. No.	Parts No.	Description
	A-7511-995-A	MOUNTED CIRCUIT BOARD "KY-37"
D1	8-719-911-19	1SS119
D2	8-719-911-19	1SS119
D3	8-719-911-19	1SS119
D4	8-719-911-19	1SS119
D5	8-719-911-19	1SS119
D6	8-719-911-19	1SS119
D7	8-719-911-19	1SS119
D8	8-719-911-19	1SS119
D9	8-719-911-19	1SS119
D10	8-719-911-19	1SS119
D11	8-719-911-19	1SS119
D12	8-719-911-19	1SS119
D13	8-719-911-19	1SS119
D14	8-719-911-19	1SS119
D15	8-719-911-19	1SS119

Ref. No.	Parts No.	Description
D16	8-719-911-19	1SS119
D17	8-719-911-19	1SS119
D18	8-719-911-19	1SS119
D19	8-719-911-19	1SS119
D20	8-719-911-19	1SS119
D21	8-719-911-19	1SS119
D22	8-719-911-19	1SS119
D23	8-719-911-19	1SS119
D24	8-719-911-19	1SS119
D25	8-719-911-19	1SS119
D26	8-719-906-47	GL9NP2
D27	8-719-906-47	GL9NP2
D28	8-719-906-47	GL9NP2
D29	8-719-906-47	GL9NP2
D30	8-719-906-47	GL9NP2
D31	8-719-906-47	GL9NP2
D32	8-719-802-06	TLR206
D33	8-719-911-19	1SS119
D34	8-719-911-19	1SS119
D35	8-719-911-19	1SS119
S1	1-516-961-00	LEVER SLIDE "POSITION"
S2	1-554-570-11	PUSH
S3	1-554-570-21	PUSH
S4	1-554-570-31	PUSH
S5	1-554-570-41	PUSH
S6	1-553-550-51	PUSH
S7	1-554-570-51	PUSH
S8	1-554-570-61	PUSH
S9	1-554-570-71	PUSH
S10	1-554-570-81	PUSH
S11	1-554-570-91	PUSH
S12	1-554-571-11	PUSH
S13	1-554-571-21	PUSH
S14	1-554-571-31	PUSH
S15	1-553-550-41	PUSH

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Ref. No.	Parts No.	Description
S16	1-554-571-41	PUSH
S17	1-554-571-51	PUSH
S18	1-554-571-61	PUSH
S19	1-554-571-71	PUSH
S20	1-516-961-00	LEVER SLIDE "PATTERN MODULATION"
S21	1-516-995-00	LEVER SLIDE "SOFTNESS/BORDER"
S22	1-516-961-00	LEVER SLIDE "PAIRING"
S23	1-554-571-81	PUSH
S24	1-554-571-81	PUSH

Ref. No.	Parts No.	Description
IC1	8-759-262-15	TD62105P: TOSHIBA
IC2	8-759-250-22	TC5022BP: TOSHIBA
IC3	8-759-262-15	TD62105P: TOSHIBA
IC4	8-759-262-15	TD62105P: TOSHIBA
IC5	8-759-262-15	TD62105P: TOSHIBA
IC6	8-759-240-28	TC4028BP: TOSHIBA
IC7	8-759-262-15	TD62105P: TOSHIBA
Q1	8-729-178-54	2SC2785
Q2	8-729-117-54	2SA1175
Q3	8-729-117-54	2SA1175
Q4	8-729-831-33	2SD313HP

KY-38 BOARD

	A-7511-996-A	MOUNTED CIRCUIT BOARD "KY-38"
C1	1-161-039-00	CERAMIC 0.001 10% 25V
C2	1-161-039-00	CERAMIC 0.001 10% 25V
C3	1-161-039-00	CERAMIC 0.001 10% 25V
C4	1-161-013-00	CERAMIC 0.01 10% 25V
C5	1-124-143-00	ELECT 100 20% 16V
C6	1-123-821-00	ELECT 47 20% 16V
C7	1-123-821-00	ELECT 47 20% 16V
C8	1-161-013-00	CERAMIC 0.01 10% 25V
D1	8-719-100-38	RD6.2EB2
D2	8-719-815-55	1S1555
D3	8-719-815-55	1S1555

LP-22 BOARD

	1-610-331-00	PRINTED CIRCUIT BOARD "LP-22"
D1	8-719-907-33	7 SEGMENT LED 5082-7433

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SW-19 BOARD

Ref. No.	Parts No.	Description
	1-610-381-00	PRINTED CIRCUIT BOARD "SW-19"
S1	**1-516-576-00**	**SLIDE "75Ω"**
VDR1	**1-806-504-11**	**ERZ-C05DK820**
VDR2	**1-806-504-11**	**ERZ-C05DK820**
VDR3	**1-806-504-11**	**ERZ-C05DK820**

SW-25 BOARD

Ref. No.	Parts No.	Description
	1-610-807-00	PRINTED CIRCUIT BOARD "SW-25"
S1	**1-554-568-11**	**MICRO**

WP-9 BOARD

Ref. No.	Parts No.	Description
	A-7615-140-A	MOUNTED CIRCUIT BOARD "WP-9 (N)" (NTSC, PAL-M)
	A-7615-141-A	MOUNTED CIRCUIT BOARD "WP-9 (P)" (PAL)
	1-161-254-00	PRINTED CIRCUIT BOARD "WP-13" Up to 10160 (U/C) Up to 10200 (AEP) Up to 10020 (UK)
C1	**1-161-013-00**	**CERAMIC 0.01 10% 25V**
C2	**1-131-361-00**	**TANTALUM 2.2 20% 20V**
C3	**1-131-347-00**	**TANTALUM 1 20% 35V**
C4	**1-124-143-00**	**ELECT 100 20% 16V**
C5	**1-123-821-00**	**ELECT 47 20% 16V**
C6	**1-123-821-00**	**ELECT 47 20% 16V**
C7	**1-123-821-00**	**ELECT 47 20% 16V**
C8	**1-123-821-00**	**ELECT 47 20% 16V**
C9	**1-123-617-00**	**ELECT 10 20% 16V**
C10	**1-161-017-00**	**CERAMIC 0.022 10% 25V**
C11	**1-130-487-00**	**MYLAR 0.022 5% 50V**
C12	**1-131-347-00**	**TANTALUM 1 20% 35V**
C15	**1-161-013-00**	**CERAMIC 0.01 10% 25V**
C16	**1-123-821-00**	**ELECT 47 20% 16V**
C17	**1-161-013-00**	**CERAMIC 0.01 10% 25V**
C18	**1-131-345-00**	**TANTALUM 0.47 10% 35V (NTSC, PAL-M)**
C18	**1-131-347-00**	**TANTALUM 1 10% 35V (PAL)**
C19	**1-131-350-00**	**TANTALUM 3.3 20% 35V**
C20	**1-124-143-00**	**ELECT 100 20% 16V**
C21	**1-124-143-00**	**ELECT 100 20% 16V**
C22	**1-124-143-00**	**ELECT 100 20% 16V**
C23	**1-124-143-00**	**ELECT 100 20% 16V**
C24	**1-161-013-00**	**CERAMIC 0.01 10% 25V**
C25	**1-123-821-00**	**ELECT 47 20% 16V**
C26	**1-161-013-00**	**CERAMIC 0.01 10% 25V**
C27	**1-123-617-00**	**ELECT 10 20% 16V**
C28	**1-130-489-00**	**MYLAR 0.033 5% 50V**
C29	**1-130-489-00**	**MYLAR 0.033 5% 50V**
C30	**1-123-821-00**	**ELECT 47 20% 16V**
C31	**1-161-013-00**	**CERAMIC 0.01 10% 25V**

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Ref. No.	Parts No.	Description
C32	1-123-821-00	ELECT 47 20% 16V
C33	1-161-039-00	CERAMIC 0.001 10% 25V
C34	1-123-617-00	ELECT 10 20% 16V
C35	1-131-345-00	TANTALUM 0.47 20% 35V
C36	1-124-143-00	ELECT 100 20% 16V
C37	1-124-143-00	ELECT 100 20% 16V
C38	1-124-143-00	ELECT 100 20% 16V
C39	1-161-013-00	CERAMIC 0.01 10% 25V
C40	1-123-821-00	ELECT 47 20% 16V
C41	1-161-013-00	CERAMIC 0.01 10% 25V
C42	1-161-013-00	CERAMIC 0.01 10% 25V
C43	1-131-345-00	TANTALUM 0.47 10% 35V (NTSC, PAL-M)
C43	1-131-346-00	TANTALUM 0.68 10% 35V (PAL)
C44	1-124-143-00	ELECT 100 20% 16V
C45	1-131-347-00	TANTALUM 1 20% 35V
C46	1-131-345-00	TANTALUM 0.47 20% 35V
C47	1-124-143-00	ELECT 100 20% 16V
C48	1-124-143-00	ELECT 100 20% 16V
C49	1-124-143-00	ELECT 100 20% 16V
C50	1-124-143-00	ELECT 100 20% 16V
C51	1-124-143-00	ELECT 100 20% 16V
C53	1-161-013-00	CERAMIC 0.01 10% 25V
C54	1-123-821-00	ELECT 47 20% 16V
C55	1-123-821-00	ELECT 47 20% 16V
C56	1-123-821-00	ELECT 47 20% 16V
C57	1-123-619-00	ELECT 4.7 20% 50V
C58	1-123-617-00	ELECT 10 20% 16V
C59	1-123-617-00	ELECT 10 20% 16V
C60	1-123-617-00	ELECT 10 20% 16V
C61	1-123-617-00	ELECT 10 20% 16V
C62	1-123-617-00	ELECT 10 20% 16V
C63	1-123-817-00	ELECT 22 20% 35V
C64	1-123-611-00	ELECT 1 20% 50V
C65	1-123-620-00	ELECT 10 20% 35V
C66	1-131-361-00	TANTALUM 2.2 20% 20V
C67	1-123-617-00	ELECT 10 20% 16V
C68	1-123-617-00	ELECT 10 20% 16V
C69	1-123-617-00	ELECT 10 20% 16V
C70	1-130-471-00	MYLAR 0.001 5% 50V
C71	1-130-483-00	MYLAR 0.01 5% 50V

Ref. No.	Parts No.	Description
C72	1-123-821-00	ELECT 47 20% 16V
C73	1-131-347-00	TANTALUM 1 20% 35V
C74	1-123-617-00	ELECT 10 20% 16V
C75	1-123-821-00	ELECT 47 20% 16V
C76	1-123-617-00	ELECT 10 20% 16V
C77	1-123-821-00	ELECT 47 20% 16V
C78	1-124-143-00	ELECT 100 20% 16V
C79	1-124-143-00	ELECT 100 20% 16V
C80	1-102-114-00	CERAMIC 420PF 10% 50V
C81	1-102-114-00	CERAMIC 420PF 10% 50V
C100	1-161-013-00	CERAMIC 0.01 10% 25V Serial No. 10121 and higher (U/C) Serial No. 10101 and higher (AEP) Serial No. 10021 and higher (UK)
D1	8-719-815-55	1S1555
D2	8-719-815-55	1S1555
D3	8-719-815-55	1S1555
D4	8-719-815-55	1S1555
D5	8-719-100-27	RD4.7EB2
D6	8-719-100-38	RD6.2EB2
D7	8-719-815-55	1S1555
D8	8-719-815-55	1S1555
D9	8-719-815-55	1S1555
D10	8-719-815-55	1S1555
IC1	8-759-133-90	μPC339C: NEC
IC2	8-759-245-28	TC4528BP: TOSHIBA
IC3	8-759-240-30	TC4030BP: TOSHIBA
IC4	8-759-240-11	TC4011BP: TOSHIBA
IC5	8-759-240-11	TC4011BP: TOSHIBA
IC6	8-759-240-51	TC4051BP: TOSHIBA
IC7	8-759-240-51	TC4051BP: TOSHIBA
IC8	8-749-939-92	BX3992: SONY
IC9	8-759-729-03	NJM2903D: JRC
IC10	8-749-939-91	BX3991: SONY
IC11	8-759-245-28	TC4528BP: TOSHIBA

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Ref. No.	Parts No.	Description
Q1	8-729-117-54	2SA1175
Q2	8-729-178-54	2SC2785
Q3	8-729-117-54	2SA1175
Q4	8-729-117-54	2SA1175
Q5	8-729-117-54	2SA1175
Q6	8-729-178-54	2SC2785
Q7	8-729-178-54	2SC2785
Q8	8-729-178-54	2SC2785
Q9	8-729-178-54	2SC2785
Q10	8-729-117-54	2SA1175
Q11	8-729-178-54	2SC2785
Q12	8-729-178-54	2SC2785
Q13	8-729-625-91	2SC2259
Q14	8-729-178-54	2SC2785
Q15	8-729-178-54	2SC2785
Q16	8-729-117-54	2SA1175
Q17	8-729-178-54	2SC2785
Q18	8-729-178-54	2SC2785
Q19	8-729-178-54	2SC2785
Q20	8-729-178-54	2SC2785
Q21	8-729-117-54	2SA1175
Q22	9-729-178-54	2SC2785
Q23	8-729-178-54	2SC2785
Q24	8-729-117-54	2SA1175
Q25	8-729-178-54	2SC2785
Q26	8-729-117-54	2SA1175
Q27	8-729-178-54	2SC2785
Q28	8-729-178-54	2SC2785
Q29	8-729-178-54	2SC2785
Q30	8-729-117-54	2SA1175
Q31	8-729-178-54	2SC2785
Q32	8-729-178-54	2SC2785
Q33	8-729-117-54	2SA1175
Q34	8-729-178-54	2SC2785
Q35	8-729-117-54	2SA1175
Q36	8-729-117-54	2SA1175
Q37	8-729-178-54	2SC2785
Q38	8-729-178-54	2SC2785
Q40	8-729-697-92	2SA979
Q41	8-729-625-91	2SC2259

Ref. No.	Parts No.	Description
Q42	8-729-697-92	2SA979
Q43	8-729-625-91	2SC2259
Q44	8-729-117-54	2SA1175
Q45	8-729-625-91	2SC2259
Q46	8-729-697-92	2SA979
Q47	8-729-178-54	2SC2785
Q48	8-729-117-54	2SA1175
Q49	8-729-178-54	2SC2785
Q50	8-729-117-54	2SA1175
Q51	8-729-178-54	2SC2785
Q52	8-729-178-54	2SC2785
Q53	8-729-178-54	2SC2785
Q55	8-729-178-54	2SC2785
Q56	8-729-178-54	2SC2785
Q57	8-729-178-54	2SC2785
Q58	8-729-178-54	2SC2785
RV1	1-226-702-00	METAL 2.2K
RV2	1-226-771-00	METAL 1K
RV3	1-226-702-00	METAL 2.2K
RV4	1-226-703-00	METAL 10K
RV5	1-226-703-00	METAL 10K
RV6	1-226-773-00	METAL 22K
RV9	1-226-702-00	METAL 2.2K
RV10	1-226-771-00	METAL 1K
RV11	1-226-702-00	METAL 2.2K
RV12	1-226-773-00	METAL 22K
RV13	1-226-773-00	METAL 22K
RV14	1-226-772-00	METAL 4.7K
RV15	1-226-772-00	METAL 4.7K
RV16	1-226-702-00	METAL 2.2K
RV17	1-226-771-00	METAL 1K
RV18	1-226-702-00	METAL 2.2K
RV19	1-226-773-00	METAL 22K
RV20	1-226-702-00	METAL 2.2K
RV21	1-226-771-00	METAL 1K
RV22	1-226-702-00	METAL 2.2K

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Ref. No.	Parts No.	Description
C114	1-123-821-00	ELECT 47 20% 16V
C115	1-102-108-00	CERAMIC 150PF 10% 50V
C116	1-130-483-00	MYLAR 0.01 5% 50V
C117	1-123-821-00	ELECT 47 20% 16V
C118	1-130-483-00	MYLAR 0.01 5% 50V
C119	1-123-821-00	ELECT 47 20% 16V
C120	1-123-617-00	ELECT 10 20% 16V
C123	1-102-108-00	CERAMIC 150PF 10% 50V
C124	1-102-108-00	CERAMIC 150PF 10% 50V
C125	1-123-607-00	ELECT 0.1 20% 50V
C126	1-123-821-00	ELECT 47 20% 16V
C127	1-123-821-00	ELECT 47 20% 16V
C128	1-123-821-00	ELECT 47 20% 16V
C129	1-107-089-00	MICA 150PF 5% 50V
C131	1-123-622-00	ELECT 22 20% 16V
		Up to 10160 (U/C)
		Up to 10310 (AEP)
		Up to 10040 (UK)
C132	1-123-622-00	ELECT 22 20% 16V
		Up to 10160 (U/C)
		Up to 10310 (AEP)
		Up to 10040 (UK)
	1-130-495-00	MYLAR 0.1 5% 50V
		Serial No. 10161 and higher (U/C)
		Serial No. 10311 and higher (AEP)
		Serial No. 10041 and higher (UK)
C135	1-161-039-00	CERAMIC 0.001 10% 25V
D1	8-719-815-55	1S1555
D2	8-719-100-27	RD4.7EB2
D3	8-719-100-38	RD6.2EB2
D4	8-719-815-55	1S1555
D5	8-719-815-55	1S1555
D6	8-719-815-55	1S1555
D7	8-719-815-55	1S1555
D8	8-719-815-55	1S1555
D9	8-719-815-55	1S1555
D10	8-719-815-55	1S1555

Ref. No.	Parts No.	Description
D11	8-719-100-27	RD4.7EB2
D12	8-719-100-38	RD6.2EB2
D13	8-719-815-55	1S1555
D14	8-719-815-55	1S1555
D15	8-719-815-55	1S1555
D16	8-719-815-55	1S1555
D17	8-719-815-55	1S1555
D18	8-719-815-55	1S1555
D19	8-719-815-55	1S1555
D20	8-719-815-55	1S1555
D21	8-719-815-55	1S1555
D22	8-719-815-55	1S1555
D23	8-719-815-55	1S1555
IC1	8-759-729-03	NJM2903D: JRC
IC2	8-759-133-90	μPC339C: NEC
IC3	8-759-245-28	TC4528BP: TOSHIBA
IC4	8-759-240-30	TC4030BP: TOSHIBA
IC5	8-759-240-11	TC4011BP: TOSHIBA
IC6	8-759-240-51	TC4051BP: TOSHIBA
IC7	8-759-240-51	TC4051BP: TOSHIBA
IC8	8-759-240-27	TC4027BP: TOSHIBA
IC9	8-759-240-53	TC4053BP: TOSHIBA
IC10	8-759-240-69	TC4069UBP: TOSHIBA
IC11	8-759-240-11	TC4011BP: TOSHIBA
IC12	8-749-939-92	BX3992: SONY
IC13	8-759-729-03	NJM2903D: JRC
IC14	8-749-939-92	BX3992: SONY
IC15	8-749-939-90	BX3990: SONY
IC16	8-749-939-91	BX3991: SONY
IC17	8-759-240-51	TC4051BP: TOSHIBA
IC19	8-759-240-11	TC4011BP: TOSHIBA
		Serial No. 10161 and higher (U/C)
		Serial No. 10311 and higher (AEP)
		Serial No. 10041 and higher (UK)

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Ref. No.	Parts No.	Description
Q1	**8-729-178-54**	**2SC2785**
Q3	**8-729-178-54**	**2SC2785**
Q4	**8-729-178-54**	**2SC2785**
Q5	**8-729-117-54**	**2SA1175**
Q6	**8-729-117-54**	**2SA1175**
Q7	**8-729-178-54**	**2SC2785**
Q8	**8-729-117-54**	**2SA1175**
Q9	**8-729-178-54**	**2SC2785**
Q10	**8-729-117-54**	**2SA1175**
Q11	**8-729-178-54**	**2SC2785**
Q12	**8-729-117-54**	**2SA1175**
Q13	**8-729-178-54**	**2SC2785**
Q14	**8-729-178-54**	**2SC2785**
Q15	**8-729-178-54**	**2SC2785**
Q16	**8-729-178-54**	**2SC2785**
Q17	**8-729-117-54**	**2SA1175**
Q18	**8-729-117-54**	**2SA1175**
Q19	**8-729-178-54**	**2SC2785**
Q20	**8-729-178-54**	**2SC2785**
Q21	**8-729-178-54**	**2SC2785**
Q22	**8-729-178-54**	**2SC2785**
Q23	**8-729-178-54**	**2SC2785**
Q24	**8-729-117-54**	**2SA1175**
Q25	**8-729-178-54**	**2SC2785**
Q26	**8-729-178-54**	**2SC2785**
Q27	**8-729-625-91**	**2SC2259**
Q28	**9-729-178-54**	**2SC2785**
Q29	**8-729-178-54**	**2SC2785**
Q30	**8-729-117-54**	**2SA1175**
Q31	**8-729-178-54**	**2SC2785**
Q32	**8-729-117-54**	**2SA1175**
Q33	**8-729-178-54**	**2SC2785**
Q34	**8-729-178-54**	**2SC2785**
Q35	**8-729-178-54**	**2SC2785**
Q36	**8-729-178-54**	**2SC2785**
Q37	**8-729-117-54**	**2SA1175**
Q38	**8-729-178-54**	**2SC2785**
Q39	**8-729-178-54**	**2SC2785**
Q40	**8-729-117-54**	**2SA1175**
Q41	**8-729-178-54**	**2SC2785**
Q42	**8-729-178-54**	**2SC2785**
Q43	**8-729-178-54**	**2SC2785**
Q44	**8-729-117-54**	**2SA1175**
Q45	**8-729-117-54**	**2SA1175**
Q46	**8-729-178-54**	**2SC2785**
Q47	**8-729-178-54**	**2SC2785**
Q48	**8-729-117-54**	**2SA1175**
Q49	**8-729-117-54**	**2SA1175**
Q50	**8-729-117-54**	**2SA1175**
Q51	**8-729-117-54**	**2SA1175**
Q52	**8-729-178-54**	**2SC2785**
Q53	**8-7290178-54**	**2SC2785**
Q54	**8-729-117-54**	**2SA1175**
Q55	**8-729-178-54**	**2SC2785**
Q56	**8-729-178-54**	**2SC2785**
Q57	**8-729-117-54**	**2SA1175**
Q58	**8-729-117-54**	**2SA1175**
Q59	**8-729-178-54**	**2SC2785**
Q60	**8-729-117-54**	**2SA1175**
Q61	**8-729-117-54**	**2SA1175**
Q62	**8-729-117-54**	**2SA1175**
Q63	**8-729-178-54**	**2SC2785**
Q64	**8-729-117-54**	**2SA1175**
Q65	**8-729-178-54**	**2SC2785**
Q66	**8-729-117-54**	**2SA1175**
Q67	**8-729-178-54**	**2SC2785**
Q69	**8-729-178-54**	**2SC2785**
Q70	**8-729-178-54**	**2SC2785**
Q71	**8-729-178-54**	**2SC2785**
Q72	**8-729-625-91**	**2SC2259**
Q73	**8-729-697-92**	**2SA979**
Q74	**8-729-178-54**	**2SC2785**
Q75	**8-723-304-00**	**2SK43-4**
Q76	**8-729-178-54**	**2SC2785**
Q77	**8-729-117-54**	**2SA1175**
Q78	**8-729-178-54**	**2SC2785**
Q79	**8-723-304-00**	**2SK43-4**
Q80	**8-729-178-54**	**2SC2785**
Q81	**8-729-178-54**	**2SC2785**
Q82	**8-729-178-54**	**2SC2785**

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Ref. No.	Parts No.	Description
RV23	**1-226-703-00**	**METAL 10K**
RV24	**1-226-771-00**	**METAL 1K**
RV25	**1-226-771-00**	**METAL 1K**
RV26	**1-226-771-00**	**METAL 1K**
RV27	**1-226-702-00**	**METAL 2.2K**
RV28	**1-226-702-00**	**METAL 2.2K**
RV29	**1-226-771-00**	**METAL 1K**
RV30	**1-226-771-00**	**METAL 1K**
RV32	**1-226-773-00**	**METAL 22K**
RV33	**1-226-703-00**	**METAL 10K**
RV34	**1-226-774-00**	**METAL 47K**
RV35	**1-226-773-00**	**METAL 22K**
RV36	**1-226-771-00**	**METAL 1K**
RV37	**1-226-771-00**	**METAL 1K**
RV38	**1-226-773-00**	**METAL 22K**
RV39	**1-226-773-00**	**METAL 22K**
RV40	**1-226-773-00**	**METAL 22K**
RV41	**1-226-773-00**	**METAL 22K**
RV42	**1-226-773-00**	**METAL 22K**
TH1	**1-800-202-XX**	**S-10K**

WP-10 BOARD

Ref. No.	Parts No.	Description
	A-7615-142-A	MOUNTED CIRCUIT BOARD "WP-10 (N)" (NTSC, PAL-M)
	A-7615-143-A	MOUNTED CIRCUIT BOARD "WP-10 (P)" (PAL)
	1-611-354-00	PRINTED CIRCUIT BOARD "WP-14" Up to 10160 (U/C) Up to 10210 (AEP) Up to 10020 (UK)
C1	**1-123-817-00**	**ELECT 22 20% 35V**
C2	**1-123-611-00**	**ELECT 1 20% 50V**
C3	**1-123-620-00**	**ELECT 10 20% 35V**
C4	**1-131-361-00**	**TANTALUM 2.2 20% 20V**
C5	**1-102-106-00**	**CERAMIC 100PF 10% 50V**
C6	**1-123-821-00**	**ELECT 47 20% 16V**
C7	**1-130-477-00**	**MYLAR 0.0033 5% 50V**
C8	**1-130-479-00**	**MYLAR 0.0047 5% 50V**
C9	**1-123-617-00**	**ELECT 10 20% 16V**
C10	**1-123-821-00**	**ELECT 47 20% 16V**
C11	**1-123-821-00**	**ELECT 47 20% 16V**
C12	**1-123-617-00**	**ELECT 10 20% 16V**
C13	**1-107-085-00**	**MICA 100PF 5% 50V**
C14	**1-107-236-00**	**MICA 560PF 5% 50V**
C15	**1-107-236-00**	**MICA 560PF 5% 50V**
C19	**1-130-483-00**	**MYLAR 0.01 5% 50V**
C20	**1-123-821-00**	**ELECT 47 20% 16V**
C21	**1-102-106-00**	**CERAMIC 100PF 10% 50V**
C22	**1-102-106-00**	**CERAMIC 100PF 10% 50V**
C23	**1-123-821-00**	**ELECT 47 20% 16V**
C24	**1-130-477-00**	**MYLAR 0.0033 5% 50V**
C25	**1-130-493-00**	**MYLAR 0.068 5% 50V**
C26	**1-123-821-00**	**ELECT 47 20% 16V**
C27	**1-123-821-00**	**ELECT 47 20% 16V**
C28	**1-123-821-00**	**ELECT 47 20% 16V**
C29	**1-123-821-00**	**ELECT 47 20% 16V**
C30	**1-123-821-00**	**ELECT 47 20% 16V**
C31	**1-102-110-00**	**CERAMIC 220PF 10% 50V**
C32	**1-130-485-00**	**MYLAR 0.015 5% 50V**
C33	**1-123-821-00**	**ELECT 47 20% 16V**

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Ref. No.	Parts No.	Description
C34	1-123-821-00	ELECT 47 20% 16V
C35	1-123-821-00	ELECT 47 20% 16V
C36	1-123-821-00	ELECT 47 20% 16V
C37	1-130-483-00	MYLAR 0.01 5% 50V
C38	1-123-821-00	ELECT 47 20% 16V
C39	1-102-106-00	CERAMIC 100PF 10% 50V
C40	1-107-085-00	MICA 100PF 5% 50V
C41	1-107-085-00	MICA 100PF 5% 50V
C42	1-123-617-00	ELECT 10 20% 16V
C43	1-123-821-00	ELECT 47 20% 16V
C44	1-102-106-00	CERAMIC 100PF 10% 50V
C45	1-102-106-00	CERAMIC 100PF 10% 50V
C46	1-123-821-00	ELECT 47 20% 16V
C47	1-123-617-00	ELECT 10 20% 16V
C48	1-130-477-00	MYLAR 0.0033 5% 50V
C49	1-123-821-00	ELECT 47 20% 16V
C50	1-123-821-00	ELECT 47 20% 16V
C51	1-123-821-00	ELECT 47 20% 16V
C52	1-130-483-00	MYLAR 0.01 5% 50V
C53	1-123-821-00	ELECT 47 20% 16V
C54	1-123-821-00	ELECT 47 20% 16V
C55	1-123-821-00	ELECT 47 20% 16V
C56	1-130-483-00	MYLAR 0.01 5% 50V
C57	1-123-821-00	ELECT 47 20% 16V
C58	1-123-617-00	ELECT 10 20% 16V
C59	1-123-617-00	ELECT 10 20% 16V
C60	1-123-617-00	ELECT 10 20% 16V
C61	1-123-617-00	ELECT 10 20% 16V
C62	1-123-617-00	ELECT 10 20% 16V
C63	1-123-607-00	ELECT 0.1 20% 50V
C64	1-123-617-00	ELECT 10 20% 16V
C65	1-123-607-00	ELECT 0.1 20% 50V
C66	1-123-617-00	ELECT 10 20% 16V
C67	1-123-617-00	ELECT 10 20% 16V
C68	1-123-817-00	ELECT 22 20% 35V
C69	1-123-611-00	ELECT 1 20% 50V
C70	1-123-620-00	ELECT 10 20% 35V
C71	1-131-361-00	TANTALUM 2.2 20% 20V
C72	1-123-613-00	ELECT 3.3 20% 50V
C73	1-123-617-00	ELECT 10 20% 16V

Ref. No.	Parts No.	Description
C74	1-123-617-00	ELECT 10 20% 16V
C75	1-123-617-00	ELECT 10 20% 16V
C76	1-123-617-00	ELECT 10 20% 16V
C77	1-123-607-00	ELECT 0.1 20% 50V
C78	1-123-821-00	ELECT 47 20% 16V
C79	1-130-483-00	MYLAR 0.01 5% 50V
C80	1-123-617-00	ELECT 10 20% 16V
C81	1-123-617-00	ELECT 10 20% 16V
C82	1-123-617-00	ELECT 10 20% 16V
C83	1-123-617-00	ELECT 10 20% 16V
C84	1-161-039-00	CERAMIC 0.001 10% 25V
C85	1-102-106-00	CERAMIC 100PF 10% 50V
C86	1-123-617-00	ELECT 10 20% 16V
C87	1-123-617-00	ELECT 10 20% 16V
C88	1-130-483-00	MYLAR 0.01 5% 50V
C89	1-123-821-00	ELECT 47 20% 16V
C90	1-123-617-00	ELECT 10 20% 16V
C91	1-161-039-00	CERAMIC 0.001 10% 25V
C92	1-102-106-00	CERAMIC 100PF 10% 50V
C93	1-123-617-00	ELECT 10 20% 16V
C94	1-123-617-00	ELECT 10 20% 16V
C95	1-107-077-00	MICA 47PF 5% 50V
C96	1-123-617-00	ELECT 10 20% 16V
C97	1-123-821-00	ELECT 47 20% 16V
C98	1-130-483-00	MYLAR 0.01 5% 50V
C99	1-123-821-00	ELECT 47 20% 16V
C100	1-130-483-00	MYLAR 0.01 5% 50V
C101	1-123-607-00	ELECT 0.1 20% 50V
C102	1-123-617-00	ELECT 10 20% 16V
C103	1-123-617-00	ELECT 10 20% 16V
C104	1-107-077-00	MICA 47PF 5% 50V
C105	1-124-144-00	ELECT 220 20% 16V
C106	1-124-144-00	ELECT 220 20% 16V
C107	1-123-611-00	ELECT 1 20% 50V
C108	1-161-013-00	CERAMIC 0.01 10% 25V
C109	1-123-821-00	ELECT 47 20% 16V
C110	1-123-821-00	ELECT 47 20% 16V
C111	1-123-821-00	ELECT 47 20% 16V
C112	1-130-483-00	MYLAR 0.01 5% 50V
C113	1-130-483-00	MYLAR 0.01 5% 50V

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Ref. No.	Parts No.	Description
Q83	8-729-178-54	2SC2785
Q84	8-729-178-54	2SC2785
Q85	8-729-178-54	2SC2785
Q86	8-729-178-54	2SC2785
Q87	8-729-178-54	2SC2785
Q88	8-729-117-54	2SA1175
Q89	8-729-117-54	2SA1175
Q90	8-729-178-54	2SC2785
Q91	8-723-304-00	2SK43-4
Q92	8-729-178-54	2SC2785
Q93	8-729-117-54	2SA1175
Q94	8-729-178-54	2SC2785
Q95	8-723-304-00	2SK43-4
Q96	8-729-178-54	2SC2785
Q97	8-729-178-54	2SC2785
Q98	8-729-178-54	2SC2785
Q99	8-729-178-54	2SC2785
Q100	8-729-178-54	2SC2785
Q101	8-729-178-54	2SC2785
Q102	8-729-178-54	2SC2785
Q103	8-729-178-54	2SC2785
Q104	8-729-178-54	2SC2785
Q105	8-729-178-54	2SC2785
Q106	8-729-117-54	2SA1175
Q107	8-729-117-54	2SA1175
Q108	8-729-178-54	2SC2785
Q109	8-729-178-54	2SC2785
Q110	8-729-117-54	2SA1175
Q111	8-729-117-54	2SA1175
Q112	8-729-178-54	2SC2785
Q113	8-729-117-54	2SA1175
Q114	8-729-117-54	2SA1175
Q115	8-729-117-54	2SA1175
Q116	8-729-117-54	2SA1175
Q117	8-729-117-54	2SA1175
Q118	8-729-178-54	2SC2785
Q119	8-729-178-54	2SC2785
Q120	8-729-117-54	2SA1175
Q121	8-729-178-54	2SC2785
Q122	8-729-178-54	2SC2785

Ref. No.	Parts No.	Description
Q123	8-729-117-54	2SA1175
Q124	8-729-178-54	2SC2785
Q125	8-729-117-54	2SA1175
Q126	8-729-625-91	2SC2259
Q127	8-729-697-92	2SA979
Q128	8-729-625-91	2SC2259
Q129	8-729-697-92	2SA979
Q130	8-729-625-91	2SC2259
Q131	8-729-697-92	2SA979
Q132	8-729-625-91	2SC2259
Q133	8-729-697-92	2SA979
Q134	8-729-625-91	2SC2259
Q135	8-729-697-92	2SA979
Q136	8-729-625-91	2SC2259
Q137	8-729-967-92	2SA979
Q138	8-729-625-91	2SC2259
Q139	8-729-697-92	2SA979
Q140	8-729-625-91	2SC2259
Q141	8-729-967-92	2SA979
Q142	8-729-178-54	2SC2785
Q143	8-729-178-54	2SC2785
Q144	8-729-117-54	2SA1175
Q145	8-729-178-54	2SC2785
Q146	8-729-178-54	2SC2785
Q147	8-729-178-54	2SC2785
Q148	8-729-117-54	2SA1175
Q149	8-729-117-54	2SA1175
Q150	8-729-178-54	2SC2785
Q151	8-729-178-54	2SC2785
Q152	8-729-117-54	2SA1175
Q153	8-729-178-54	2SC2785
Q154	8-729-178-54	2SC2785 Serial No. 10161 and higher (U/C) Serial No. 10311 and higher (AEP) Serial No. 10041 and higher (UK)
R3	1-246-485-00	CARBON 3.3K 5% 1/4W
R151	1-246-495-00	CARBON 3.3K 5% 1/4W
R331	1-214-108-00	METAL 100 1% 1/4W

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WP-10, FRAME

Ref. No.	Parts No.	Description
RP1	1-231-387-00	DA CONVERTOR
RV1	1-226-771-00	METAL 1K
RV2	1-226-702-00	METAL 2.2K
RV3	1-226-771-00	METAL 1K
RV4	1-226-702-00	METAL 2.2K
RV5	1-226-773-00	METAL 22K
RV6	1-226-703-00	METAL 10K
RV7	1-226-703-00	METAL 10K
RV8	1-226-773-00	METAL 22K
RV11	1-226-702-00	METAL 2.2K
RV12	1-226-771-00	METAL 1K
RV13	1-226-702-00	METAL 2.2K
RV14	1-226-773-00	METAL 22K
RV15	1-226-702-00	METAL 2.2K
RV16	1-226-771-00	METAL 1K
RV17	1-226-702-00	METAL 2.2K
RV18	1-226-773-00	METAL 22K
RV19	1-226-773-00	METAL 22K
RV20	1-226-773-00	METAL 22K
RV21	1-226-772-00	METAL 4.7K
RV22	1-226-772-00	METAL 4.7K
RV23	1-226-702-00	METAL 2.2K
RV24	1-226-771-00	METAL 1K
RV25	1-226-702-00	METAL 2.2K
RV26	1-226-773-00	METAL 22K
RV27	1-226-703-00	METAL 10K
RV28	1-226-703-00	METAL 10K
RV29	1-226-702-00	METAL 2.2K
RV30	1-226-702-00	METAL 2.2K
RV31	1-226-771-00	METAL 1K
RV32	1-226-771-00	METAL 1K
RV33	1-226-771-00	METAL 1K
RV34	1-226-771-00	METAL 1K
RV35	1-226-771-00	METAL 1K
RV36	1-226-771-00	METAL 1K
RV37	1-226-771-00	METAL 1K

Ref. No.	Parts No.	Description
RV39	1-226-771-00	METAL 1K
RV40	1-226-702-00	METAL 2.2K
RV41	1-226-702-00	METAL 2.2K
RV42	1-226-774-00	METAL 47K
RV43	1-226-771-00	METAL 1K
RV44	1-226-773-00	METAL 22K
RV45	1-226-773-00	METAL 22K
RV46	1-226-773-00	METAL 22K
RV47	1-226-773-00	METAL 22K
TH1	1-800-202-XX	S-10K

FRAME

Ref. No.	Parts No.	Description
CN101	1-509-422-XX	RECEPTACLE, 6P FEMALE "WIPE OUT 1"
CN102	1-561-781-21	RECEPTACLE, BNC "WIPE OUT 2"
CN103	1-561-781-21	RECEPTACLE, BNC "GENLOCK IN"
CN104	1-561-781-21	RECEPTACLE, BNC "GENLOCK OUT"
CN105	1-526-531-00	RECEPTACLE, 4P FEMALE "EXT DC IN"
⚠ CN106	1-509-546-00	"∿AC IN"
⚠ CN107	1-526-572-00	VOLTAGE SELECTOR (PAL, PAL-M)
Q101	8-729-315-63	2SB856
Q102	8-729-315-63	2SB856
Q103	8-729-315-63	2SB856
Q104	8-729-315-63	2SB856

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Ref. No.	Parts No.	Description
RV101	**1-226-342-00**	**CARBON 5K JOYSTICK TIPE "POSITION"**
RV102	**1-230-158-00**	**CARBON 2Kx4 "SYMMETRY"**
RV103	**1-230-160-00**	**CARBON 5K "FREQ"**
RV104	**1-230-160-00**	**CARBON 5K "AMPL"**
RV105	**1-230-159-00**	**CARBON 5Kx2 "SOFTNESS/BORDER"**
RV106	**1-230-160-00**	**CARBON 5K "WIPE SPEED"**
RV107	**1-230-157-00**	**CARBON 5Kx2 WITH SWITCH "SERVO"**
⚠ **S102**	**1-554-567-11**	**ROTARY "POWER" (NTSC)**
⚠ **S102**	**1-554-567-11**	**ROTARY "POWER" (PAL, PAL-M)**
⚠ **T101**	**1-447-635-00**	**POWER TRANSFORMER WITH CONNECTOR (NTSC)**
⚠ **T101**	**1-447-634-00**	**POWER TRANSFORMER WITH CONNECTOR (PAL, PL-M)**
	1-509-921-00	PLUG HOUSING
	1-535-047-00	**PLUG CONTACT**

PACKING MATERIAL & ACCESSORY (SUPPLIED)

Ref. No.	Parts No.	Description
⚠	**1-551-812-00**	**CORD, POWER (U/C)**
⚠	**1-556-760-00**	**CORD, POWER (3 CORE) (PAL, PAL-M)**
	2-382-133-00	CUSHION (FRONT)
	2-382-134-00	CUSHION (REAR)
	2-382-137-00	CUSHION (LOWER)
	2-382-223-00	INDIVIDUAL CARTON
	2-382-224-00	CUSHION (UPPER)
	3-701-625-00	**BAG, POLY (FOR POWER CORD)**
	3-701-630-00	**BAG, POLY (FOR MANUAL)**
	3-701-640-00	**BAG, POLY (FOR WEX-2000)**
⚠	**3-773-458-21**	**MANUAL, INSTRUCTION (U/C)**
⚠	**3-773-458-11**	**MANUAL, INSTRUCTION (AEP, UK, BRZ)**

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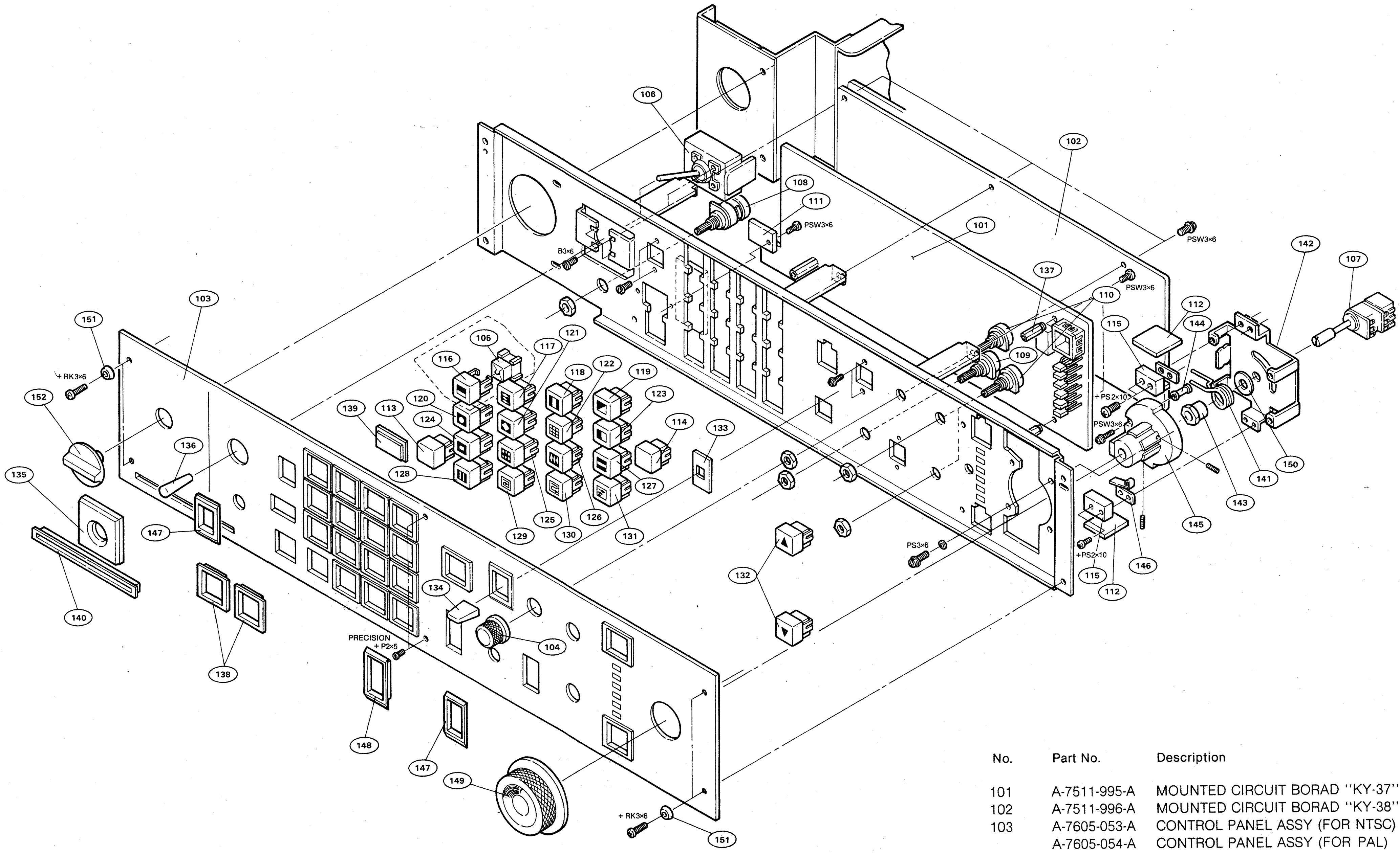
6-3. EXPLODED VIEW
FRONT PANEL BLOCK


106
102
108
111
PSW3×6
101
PSW3×6
B3×6
142
107
137
PSW3×6
110
112
115
144
103
121
105
117
116
118
122
119
151
+RK3×6
109
+PS2×10
PSW3×6
152
139
113
120
124
123
114
133
136
135
128
125
126
127
131
129
130
141
150
143
145
147
PS3×6
+PS2×10
146
132
115
112
140
134
138
PRECISION
+P2×5
104
148
147
149
+RK3×6
151

No.	Part No.	Description
101	A-7511-995-A	MOUNTED CIRCUIT BORAD "KY-37"
102	A-7511-996-A	MOUNTED CIRCUIT BORAD "KY-38"
103	A-7605-053-A	CONTROL PANEL ASSY (FOR NTSC)
	A-7605-054-A	CONTROL PANEL ASSY (FOR PAL)
	A-7605-055-A	CONTROL PANEL ASSY (FOR PM)
104	**X-3661-073-0**	**VOL KNOB ASSY**
105	**1-518-450-12**	**PILOT LAMP**
106	1-226-342-00	JOYSTICK TIPE 5K (RV101, POSITION)
107	1-230-157-00	R, VAR, CARBON 5K × 2 WITH SWITCH (RV107, SERVO)
108	1-230-158-00	R, VAR, CARBON 2K × 4 (RV102, SYMMETRY)
109	1-230-159-00	R, VAR, CARBON 5K × 2 (RV105, SOFTNESS/BORDER)
110	1-230-160-00	R, VAR, CARBON 5K (RV103, FREQ, RV104, AMPL, RV106, WIPE SPEED)
111	**1-610-331-00**	**PRINTED CIRCUIT BOARD "LP-22"**
112	**1-610-807-00**	**PRINTED CIRCUIT BOARD "SW-25"**
113	**3-706-481-11**	**KEY TOP**
114	**3-706-481-01**	**KEY TOP (S6)**
115	**1-554-568-00**	**SWITCH, MICRO**
116	**3-706-802-01**	**KEY TOP (S2)**
117	**3-706-802-02**	**KEY TOP (S3)**
118	**3-706-802-03**	**KEY TOP (S4)**
119	**3-706-802-04**	**KEY TOP (S5)**
120	**3-706-802-05**	**KEY TOP (S7)**
121	**3-706-802-06**	**KEY TOP (S8)**
122	**3-706-802-07**	**KEY TOP (S9)**
123	**3-706-802-08**	**KEY TOP (S10)**
124	**3-706-802-09**	**KEY TOP (S11)**
125	**3-706-802-10**	**KEY TOP (S12)**
126	**3-706-802-11**	**KEY TOP (S13)**
127	**3-706-802-12**	**KEY TOP (S14)**
128	**3-706-801-13**	**KEY TOP (S16)**
129	**3-706-802-14**	**KEY TOP (S17)**
130	**3-706-802-15**	**KEY TOP (S18)**
131	**3-706-802-16**	**KEY TOP (S19)**
132	**3-706-802-17**	**KEY TOP (S23, S24)**
133	2-249-363-00	PLATE, PAD, SWITCH
134	**2-252-620-00**	**KNOB, LEVER SWITCH**
135	2-254-713-00	COVER, JOYSTICK
136	**2-296-508-00**	**KNOB, JOYSTICK**
137	2-296-523-00	STUD (1), PCB
138	2-296-534-00	ESCUTION(12), BOTTON
139	2-382-206-00	COVER, LAMP
140	2-382-207-00	FRAME, ORNAMENTAL
141	2-382-208-00	SPRING, TORSION
142	2-382-209-00	BRACKET,CONTROL
143	2-382-210-00	HOLDER, SPRING
144	2-382-211-00	SHAFT
145	2-382-218-00	FLANGE
146	2-382-222-00	ACTUATOR
147	3-668-016-00	FRAME (SMALL), ORNAMENTAL
148	3-668-018-00	FRAME (MIDDLE), ORNAMENTAL
149	**3-668-909-02**	**DIAL, EN**
150	**3-701-447-21**	**WASHER (10 DIA.)**
151	**3-703-224-00**	**WASHER (3 DIA.),ORNAMENTAL**
152	**4-858-419-11**	**KNOB, SELECTOR**

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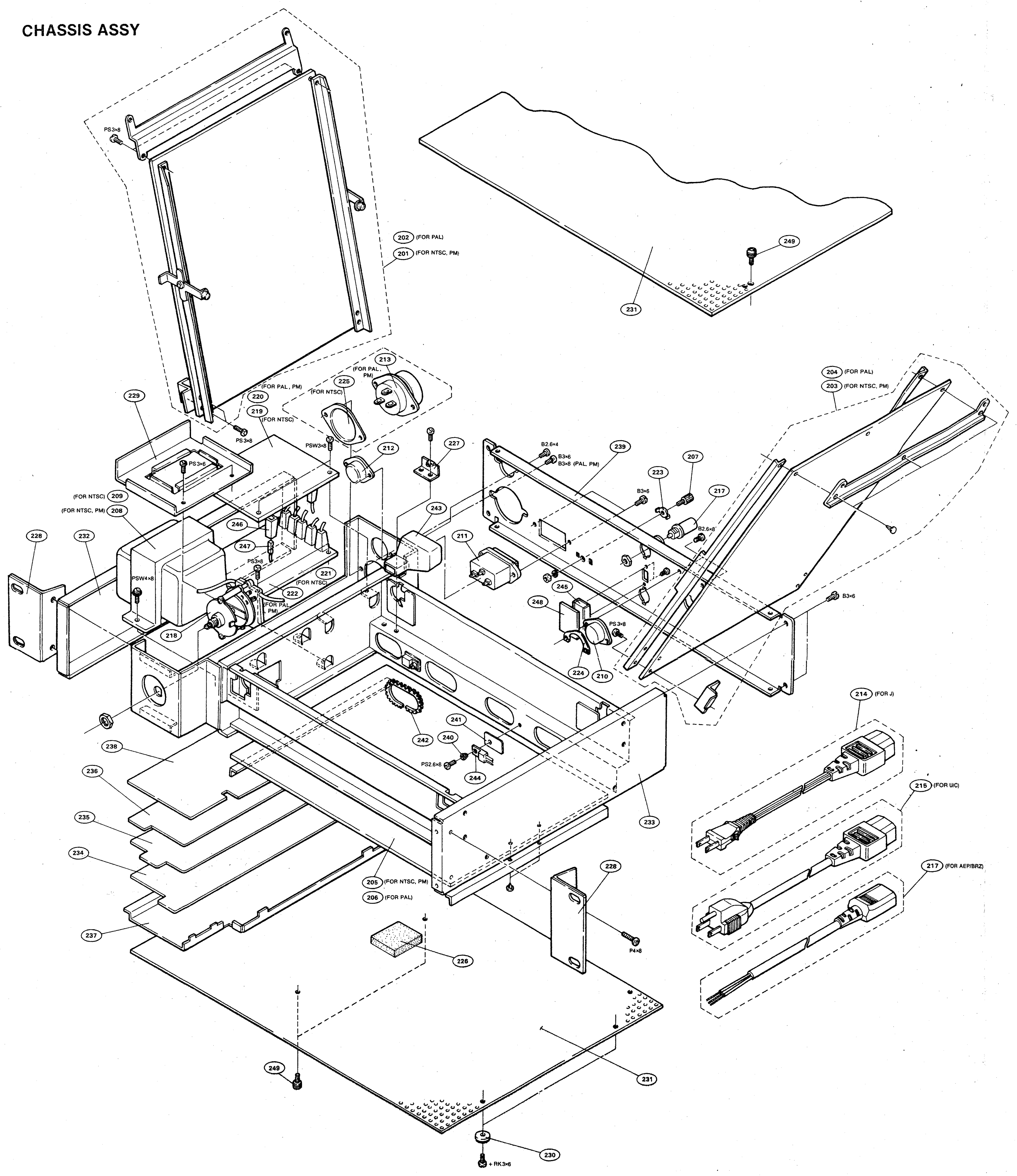
CHASSIS ASSY


PS3×8
202 (FOR PAL)
201 (FOR NTSC, PM)
249
231
213
(FOR PAL, PM)
225
(FOR NTSC)
(FOR PAL, PM) 220
219 (FOR NTSC)
229
PS3×8
PSW3×8
PS3×6
212
227
(FOR NTSC) 209
(FOR NTSC, PM) 208
228
232
246
247
PS3×8
PSW4×8
221 (FOR NTSC)
222 (FOR PAL, PM)
218
243
211
B2.6×4
B3×6
B3×8 (PAL, PM)
239
223
207
217
B3×6
B2.6×8
245
248
PS3×8
224
210
204 (FOR PAL)
203 (FOR NTSC, PM)
B3×6
214 (FOR J)
215 (FOR U/C)
216 (FOR AEP/BRZ)
238
236
235
234
237
241
242
240
244
PS2.6×8
233
205 (FOR NTSC, PM)
206 (FOR PAL)
228
P4×8
226
231
249
230
+RK3×6

No.	Part No.	Description
201	A-7615-140-A	MOUNTED CIRCUIT BOARD "WP-9" (FOR NTSC, PM)
202	A-7615-141-A	MOUNTED CIRCUIT BOARD "WP-9" (FOR PAL)
203	A-7615-142-A	MOUNTED CIRCUIT BOARD "WP-10" (FOR NTSC, PM)
204	A-7615-143-A	MOUNTED CIRCUIT BOARD "WP-10" (FOR PAL)
205	A-7615-144-A	MOUNTED CIRCUIT BOARD "CP-54" (FOR NTSC, PM)
206	A-7615-145-A	MOUNTED CIRCUIT BOARD "CP-54" (FOR PAL)
207	X-2068-004-0	EARTH TERMINAL
⚠ 208	**1-447-634-00**	**TRANSFORMER, POWER (FOR PAL, PM)**
⚠ 209	**1-447-635-00**	**TRANSFORMER, POWER (FOR NTSC)**
210	**1-509-422-XX**	**RECEPTACLE 6P FEMALE (CN101, WIPE OUT1)**
⚠ 211	**1-509-546-00**	**INLET, 3P (CN106, ∼AC IN)**
212	**1-526-531-00**	**RECEPTACLE 4P FEMALE (CN105, EXT DC IN)**
213	**1-526-572-00**	**VOLTAGE, SELECT (FOR PAL, PM)**
⚠ 214	**1-534-754-15**	**POWER, CODE (FOR J)**
⚠ 215	**1-551-812-00**	**POWER, CODE (FOR U/C)**
⚠ 216	**1-556-760-00**	**POWER, CODE (FOR AEP,BRZ)**
217	**1-561-781-21**	**RECEPTACLE, BNC (CN102, WIPE OUT2, CN103, GENLOCK IN, CN104, GENLOCK OUT)**
⚠ 218	**1-554-567-11**	**SWITCH ASSY, ROTARY POWER (FOR NTSC)**
	1-554-567-21	**SWITCH ASSY, ROTARY POWER (FOR PAL, PM)**
219	1-610-324-11	PRINTED CIRCUIT BOARD "AC-42" (FOR NTSC)
220	1-610-324-21	PRINTED CIRCUIT BOARD "AC-42A" (FOR PAL, PM)

No.	Part No.	Description
221	1-610-330-31	PRINTED CIRCUIT BOARD "AC-41B" (FOR NTSC)
222	1-610-330-41	PRINTED CIRCUIT BOARD "AC-41C" (FOR PAL, PM)
223	**2-068-008-00**	**WASHER**
224	**2-070-339-00**	**NAT, PLATE**
225	2-228-109-00	LID, MASKING (FOR NTSC)
226	2-279-520-00	CUSHION
227	2-382-104-00	STOPPER
228	2-382-107-00	ANGLE
229	2-382-108-00	HOLDER, TRANSFORMER
230	2-382-110-00	LEG
231	2-382-116-00	COVER
232	2-382-124-02	PANEL (LEFT), SIDE
233	2-382-125-02	PANEL (RIGHT), SIDE
234	2-382-213-00	LIST (3), WIPE
235	2-382-214-00	LIST (2), WIPE
236	2-382-215-00	LIST (1), WIPE
237	2-382-216-00	CASE (A), CARD
238	2-382-217-00	CASE (B), CARD
239	2-382-220-00	PANEL, REAR
240	**2-832-007-00**	**BUSHING(K), INSULATING**
241	**3-703-037-00**	**INSULATOR TO-220**
242	**3-512-114-00**	**BUSH**
243	4-601-466-01	COVER, 3P INLET
244	**8-729-315-63**	**2SB856 (Q101∼104)**
245	**1-516-576-00**	**SLIDE SWITCH, "75Ω"**
⚠ 246	**1-509-921-00**	**PLUG, HOUSING**
⚠ 247	**1-535-047-00**	**PLUG, CONTACT**
248	1-610-576-00	PRINTED CIRCUIT BOARD "SW-19"
249	**2-382-129-01**	**SCREW, BW3 × 6**

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